The BULLETIN

American Society of Hospital Pharmacists

RADIOACTIVE ISOTOPES
and the hospital pharmacist

MANUFACTURING PHARMACEUTICALS
in the hospital

PROCEEDINGS NUMBER A. S. H. P
Reports, Affiliates, Officers

℞ VOLUME 7 NUMBER 4 JULY—AUGUST 1950

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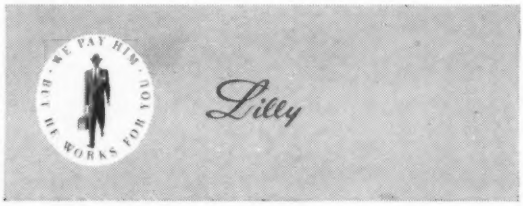

The BULLETIN
American Society of Hospital Pharmacists

JULY—AUGUST 1950
VOLUME 7 NUMBER 4

MEMBERSHIP in the American Society of Hospital Pharmacists and the American Pharmaceutical Association is open to all practicing Hospital Pharmacists. With membership is included subscriptions to THE BULLETIN of the American Society of Hospital Pharmacists and to the two *Journals* of the American Pharmaceutical Association, as well as the several services of both organizations.

ADVERTISING is accepted from those firms currently advertising in the *Journals* of the American Pharmaceutical Association. In addition, advertising for special equipment and material will be accepted. Inquiries should be sent to the Division of Hospital Pharmacy, American Pharmaceutical Association, 2215 Constitution Ave., N.W., Washington 7, D.C.

SUBSCRIPTION RATE: In the U.S. $4.50 per year (six issues), single copies 75 cents; Foreign $5 per year, single copies 85 cents.

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The American Society of Hospital Pharmacists, an affiliate of the American Pharmaceutical Association, is a national organization devoted to the profession of hospital pharmacy and dedicated to the interests of the hospital pharmacist.

IN THIS ISSUE

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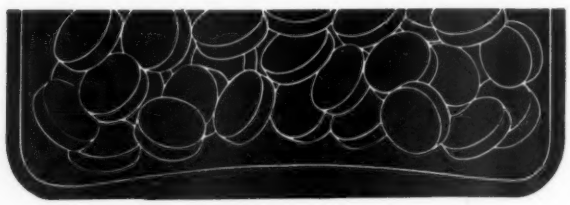

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LETTERS

Thanks

SIRS: Thank you for your letter of July 7th giving us helpful information on the manufacture of parenteral solutions. Thank you also for the enclosure of J. R. Cathcart's article entitled "Economics of Parenteral Solution Preparation."

ETHEL A. TURNER, R.N.,
Assistant Director

Lowell General Hospital
Lowell, Massachusetts

Plaudits

SIRS: Enclosed is our check for $4.50 for subscription to THE BULLETIN. This journal came to my attention just several days ago and I am so impressed with it that I feel it should be in the administrator's office. Certainly, although it is of great value to hospital pharmacists, it should be of great value also to hospital directors.

R. R. GRIFFITH, *Director*

The Delaware Hospital, Inc.
Wilmington, Delaware

Member

SIRS: Enclosed is an application for membership in the American Society of Hospital Pharmacists and I am also forwarding an application for membership in the American Pharmaceutical Association at the same time. After attending the Institute on Hospital Pharmacy which was recently held in Ann Arbor, Mich., I am anxious to become a part of this cause.

HARVARD P. GRAY, *Chief Pharmacist*

Veterans Administration
Togus, Maine

Propylene Glycol

DEAR SIRS: Please send me a copy of the article on propylene glycol that appeared in THE BULLETIN, Jan.–Feb. (7:1) by Heine, Parker, and Francke. Enclosed is seventy-five cents to cover the cost of the same. Advise me whether I can subscribe to your BULLETIN as a non-member.

JACK SCHNEIDER

Schneider's Prescription Pharmacy
Washington 1, D.C.

Approval

DEAR SIRS: Your recent changes in THE BULLETIN have been most pleasing and the issues which I have received previously are of greater value each day. Would it be possible to obtain all issues of THE BULLETIN printed prior to July–August, 1949?

The Society of Hospital Pharmacists of Greater Cincinnati has taken the opportunity to teach hospital pharmacy on a rotating basis here at the Cincinnati School of Pharmacy. Your publication has proven most helpful in this enterprise.

EUGENE TRAINER

3738 Spencer Avenue
Norwood 12, Ohio

Floor Plans

SIRS: Under separate cover I am returning the copy of the suggested plan for a hospital pharmacy for a 200 bed hospital.

It has been a great help in giving me ideas to incorporate in the proposed expanded pharmacy for the Watts Hospital, and I appreciate the use of the material very much.

HUNTER L. KELLY, *Pharmacist*

Watts Hospital
Durham, North Carolina

Subscription

DEAR SIRS: Enclosed is a check for $0.75 for THE BULLETIN containing the article on propylene glycol.

I am very interested in subscribing to a magazine that deals with the latest drugs and their compounding. Can an outsider, not a hospital pharmacist, get this magazine. If possible send the subscription rate.

J. B. ZUBRICK

212 S. McKean Ave.
Donora, Pa.

Internship

SIRS: I have been interested in hospital pharmacy for some time with a desire to know more about the field. A recent interesting article in the *American Professional Pharmacist* stated that I might obtain a current list of openings in hospital pharmacy from your office. I would appreciate your sending this along with any other such information available. Also, I would like some information regarding internships in hospital pharmacy.

JAMES W. MITCHENER

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MEDICAMENTA VERA

EDITORIAL

The A.S.H.P.—Yesterday, Today, and Tomorrow

by Don E. Francke

When, in 1952, the American Pharmaceutical Association is celebrating the centennial of its founding, the American Society of Hospital Pharmacists will commemorate its decennial. With it, the decennial year will bring to the fore a fuller realization of the importance of the development of hospital pharmacy and its impact upon pharmacy as a profession.

Yesterday

In 1943, the A.S.H.P. was a small group of approximately 150 hospital pharmacists which only the year before at the Denver convention had been accepted as an affiliate of the American Pharmaceutical Association. At that time only a few gave a little thought to the newborn Society, and fewer still expected it to grow to even double or triple its 1943 size. Today the Society numbers more than 1,600 members and, while still numerically small as associations are gauged, it is becoming recognized as a key organization in the practice of pharmacy in America. In 1952, the Society should achieve a membership of approximately 2,500 and represent a potent force in the public health aspects of pharmacy, and in the distribution of pharmaceuticals in America.

Today

The status and the activities of the Society today, and of its coordinating unit, the Division of Hospital Pharmacy, are reflected in a great measure by the reports and other data contained in the thirty-two page proceedings section which begins on page 189 of this issue. In this section will be found a condensed summary of the results of coordinated cooperation by numerous individuals all working toward a common goal—the advancement of hospital pharmacy in the interest of better care for hospital patients. A review of the proceedings section will crystallize the accomplishments of the past year and will indicate what can be attained by coordinated effort. One of the prime reasons for the Society's rapid growth and numerous accomplishments is the willingness and enthusiasm with which so many of its members participate in its activities. New members rapidly catch this enthusiastic approach and soon they too are meeting the challenge of accomplishment laid down by their predecessors and, in their own pharmacies, in their relations with allied professions, in local and regional chapters, in contributions to the literature, and in numerous other ways, they join the vanguard which is constantly pressing forward. As long as this spirit is maintained the net result is bound to be continued advancement.

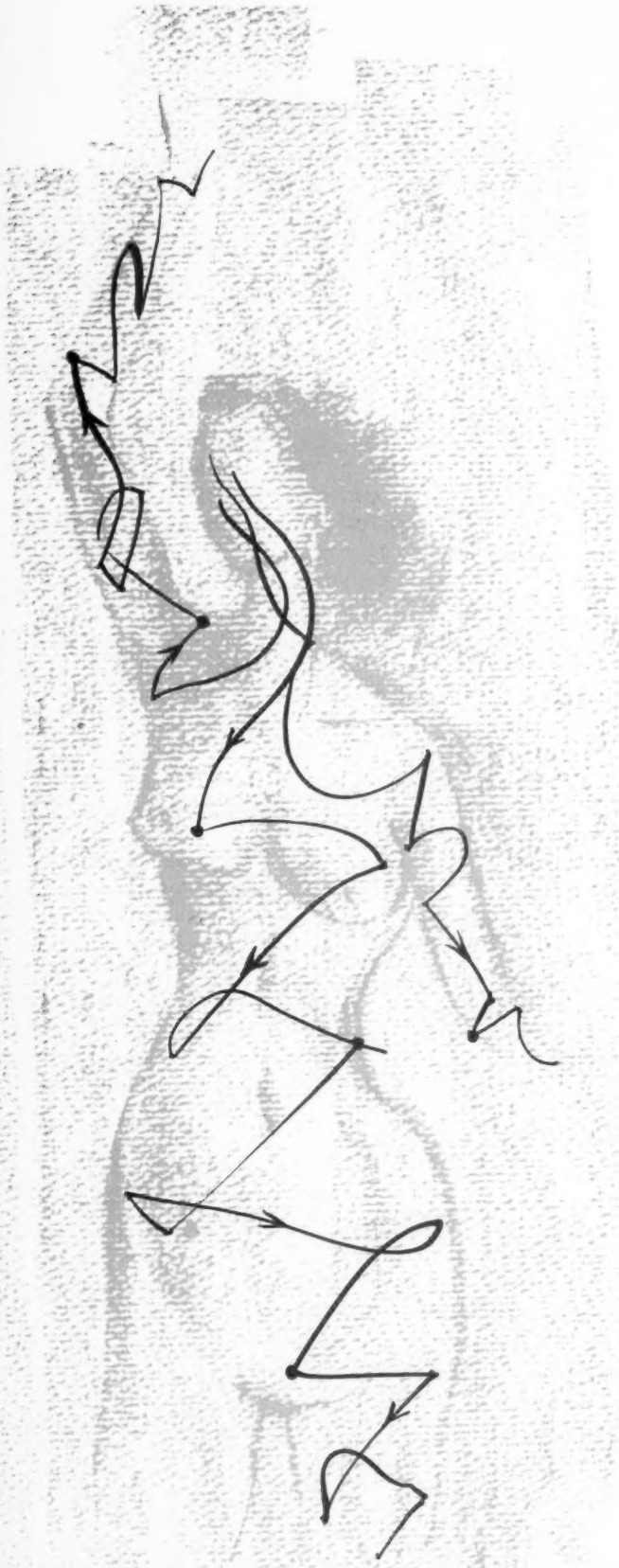
Tomorrow

Pharmacy tomorrow is going to be greatly affected by what is happening in hospital pharmacy today. In turn, hospital pharmacy today is being influenced by the increased impetus toward greater social security for the people, including all aspects of hospital and medical care. Great progress has been made in the expansion of the availability of medical care through voluntary hospital and medical insurance. Labor and management have cooperated to make medical and hospital care through voluntary insurance available to workers. There is a growing tendency for management to adopt the philosophy that the maintenance of the health of the worker and his family are important to industry and is as much a part of management's responsibility as is the care and maintenance of machines. This concept in a highly industrialized nation as ours must surely affect the future of pharmacy.

Within the near tomorrows, the Society and what it represents will continue to grow in numbers, prestige, influence and scope. This is inevitable. A strong beginning has been made; but sustained effort is the price of persistent progress. This is the responsibility of the many rather than of a few. Each in his own sphere can make his individual contribution by providing better pharmaceutical service to the patient. Some can do more; but it is the total of many individual efforts that makes the final sum.

Also, tomorrow will bring with it many new hospitals, more and better pharmacies, better trained pharmacists, a great increase in the care of the sick in hospitals, increased outpatient services, coordinated and regional hospital plans, new programs for the care of the aged, and a new concept of the rôle of pharmacy in public health. In all of these changes the Society has a large stake and it must prepare now to meet the challenges of tomorrow.

An important use of radioactive drugs is as a tracer substance



Radioactive Isotopes

in Hospital Pharmacy

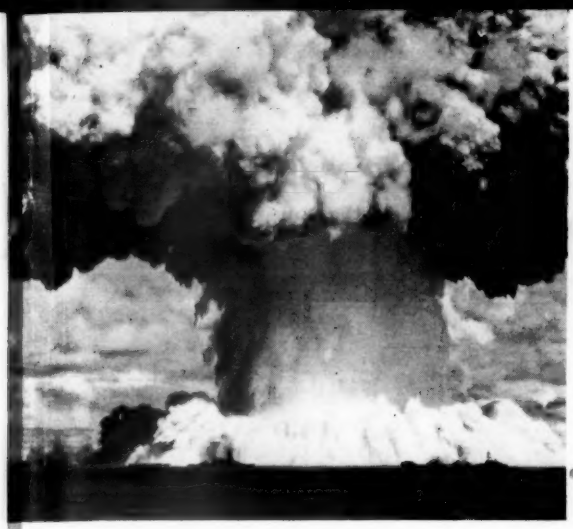
By JOHN E. CHRISTIAN

INCREASED use of and interest in radioactive isotopes in medical procedures indicate the need for the dissemination of practical information concerning these materials to the pharmacist. Such information should be of particular importance to the hospital pharmacist, since isotopes are, at the present time, utilized for medicinal purposes only in connection with hospital units. The hospital pharmacist should be prepared to provide information and assistance when requested, and in many instances, take the initiative in the establishment of facilities and know how for utilization of these materials in medical practice and in medical research.

Presented before the American Society of Hospital Pharmacists, Atlantic City, May, 1950.

JOHN E. CHRISTIAN is coordinator of the Bio-Nucleonics Research Program, Purdue University, Lafayette, Indiana, and professor of Pharmaceutical Chemistry, School of Pharmacy.

The illustrations on pages 181 and 182 were taken from original drawings supplied by the Isotopes Division, U.S. Atomic Energy Commission, Oak Ridge, Tennessee.



Increased use of radioactive compounds opens new vistas for hospital pharmacists. Here are described some fundamental principles in the handling of these compounds

Radioactive isotopes are now well established as therapeutic and diagnostic agents in a substantial number of our medical institutions. Their importance is borne out by the fact that the greatest use of radioactive isotopes, based on the number of shipments, has been in the medical field. From August 1946, the date of the first shipments, to July 1949, 42 per cent of all shipments have been for medical usage. Twenty-eight per cent were directed into a closely allied field—animal physiology. Over sixty medical institutions have received isotope shipments to date. This interest has developed in the relatively short period of four years that isotopes have been made available in quantity.

DEFINITION

Before continuing, let us discuss briefly what radioactive isotopes are. Isotopes being species of the same element, all have the same number of protons in the nucleus of the atom but differ in the number of neutrons and thus differ slightly in mass. The isotopes of any particular element react the same in all chemical and physiologic processes and in general cannot be differentiated either chemically or physiologically. Depending on the stability of the nucleus, isotopes are classified as stable or unstable. The unstable isotopes are called radioactive isotopes since their nuclei disintegrate and in so doing give off energy in the form of ionizing radiation and are said to exhibit radioactive properties. It is this radioactive property that makes unstable or radioactive isotopes so important in medicine. Such isotopes are characterized by the type of ionizing radiation (alpha, beta or gamma) emitted and the half-life period. The half-life period is the time during which one-half of the original radioactive atoms disintegrate and with different isotopes varies from a fraction of a second to several thousand years. For the detection and measurement of radioactive isotopes, the Geiger-Müller counter is the instrument most used; however, electroscopes, electrometers, and photographic film are also used.

APPLICATIONS

Radioactive isotopes are used in a great many ways for the benefit of mankind. The peace time application may be classified into three general areas: (1) the pursuit of fundamental atomic research, leading to further constructive applications of isotopes and certainly to advances in human knowledge; (2) the development of useful power, leading to economic and sociological gains; and (3) the use of radioactive products, leading to knowledge and beneficial applications in a wide range of scientific, industrial, pharmaceutical, and medical fields.

The latter use is the one of particular interest to the hospital pharmacist. This is brought out by the fact that in medicine at the present time radioactive products, by virtue of the ionizing radiation emitted, have three outstanding applications: (1) as therapeutic agents, (2) as diagnostic agents, and (3) as tracer substances in medical research.

Space does not permit nor does it seem desirable to present all of the uses of radioactive isotopes in therapy diagnosis and research. But the information presented in Table 1 should give some concept of the possible applications. The emphasis has been placed on the utilization of isotopes in clinical medicine since this is the area in which the hospital pharmacist is primarily concerned. As has been stated, the availability of these isotopes for medical use is relatively recent and thus the utilization is in the preliminary stages. It seems probable that within 15 to 20 years there will be a large number of medical procedures employing isotopes and they will become as important as the x-ray is today and will be standard equipment in all hospitals.

TABLE I

THE APPLICATIONS OF RADIOACTIVE ISOTOPES TO MEDICINE
(IN ORDER OF PROBABLE IMPORTANCE) +

Element	Isotope	Cost * per mc.	Vehicle	Method of Administration	Use
Iodine	131	$1.00	Labeled NaI	Oral or Intravenous	Hyperthyroidism, Thyroid Cancer and Metastases
			Labeled Di-iodofluorescein	Intravenous	Detection of Brain Tumors
Phosphorus	32	1.10	Soluble Labeled PO_4	Oral or Intravenous	Polycythemia vera, Chronic Leukemia, Location of Brain Tumors
				Topical	Warts, Angiomas and Basal-cell Carcinomas
			Labeled $CrPO_4$	Intravenous	Hepatosplenomeally in Leukemia
Sodium	24	0.80	Labeled NaCl	Oral or Intravenous	Leukemia Detecting Restricted Blood Circulation Radiocardiography Na Turnover Studies
Gold	198	0.24	Gold Colloids	Intravenously	Lymphoblastomas
				Interstitially	Localized Lesions
Cobalt	60	1.65	Cobalt Needles	Inserted Locally	Malignancies (Substitute for Radium)
			Cobalt Metal	External Irradiation Source	Malignancies (Substitute for Radium)
Strontium	90	1.35	Strontium	External Irradiation Source	Treating Small Lesions
	89	22.00	Strontium Lactate	Intravenously	Bone Malignancy
Yttrium	90	0.33	Yttrium Lactate Colloid	Intravenously	Leukemia and Polycythemia vera

Other isotopes suggested for use in clinical medicine but not established are: H^3, C^{14}, Mn^{52}, Zn^{63}, Zr^{95}, and Cb^{95} These have all been suggested for the treatment of malignancies.

Over 50 other radioactive isotopes have been used in biological and medical research investigations as tracer substances.

+ Radium and Radon have not been included in this table since they have been used for many years and their applications are well known.

* The cost of shipment and a handling charge of $10.00 must be added to this cost.

BACKGROUND INFORMATION ON USAGE

The problems involved in using isotopes are of such a nature that it is necessary for the hospital pharmacist to spend some time in becoming familiar with certain background information; however, the considerations necessary are not difficult and one does not have to be a nuclear physicist to understand the utilization of these materials.

Radioactive materials, since they emit ionizing radiation, become health hazards in appreciable quantities and it is thus apparent that precautions must be taken in distribution and handling procedures. Fundamentally radioisotope usage is no more hazardous than work involving poisonous materials or high voltage; it is necessary, however, to become familiar with and protect against their particular type of hazard.

Since these materials may become health hazards if not properly handled, it is necessary for the Atomic Energy Commission to control allocation by establishing certain criteria for usage in human subjects. The criteria which must be met before isotopes can be purchased for medicinal purposes are as follows:

(1) Physicians using radioactive material must be associated with a medical institu-

tion, hospital or clinic, or other medical organization possessing adequate facilities and which is in good standing with the local medical society. Facilities must be adequate for:

(a) Assaying, safe handling and disposal of radioactive materials.

(b) Clinical care of the patient.

(2) The hospital or medical institution should appoint a local "Isotope Committee" to evaluate all proposals for therapeutic use of the substances within that institution. This committee should include:

(a) A physician trained in internal medicine.

(b) A physician trained in hematology.

(c) An individual experienced in assay of radio materials and protection against ionizing radiations.

(d) Whenever possible, a qualified physicist and a therapeutic radiologist should be available in a consulting capacity.

(3) The scientifically trained individual who will use or directly supervise the use of material must be an accredited physician in good standing with the local medical society.

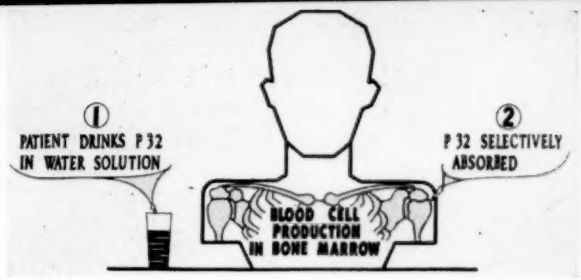
(4) The physician must have had previous clinical experience with radiation or radioactive materials or be directly collaborating with an individual possessing such training and experience.

In the initial stages of the hospital program only those isotopes, the usage of which has been well worked out and established, will be allocated.

The first step in establishing an isotope program is the selection of the local Isotope Committee as outlined above. This Committee should be utilized to consider the immediate and probable future isotope needs and to set up procedure concerning the control of isotopes and associated hazards in the institution. In addition, the Committee should be expected to make recommendations relative to suitable laboratory facilities for storage and handling, and suitable instrumentation for measurements and health monitoring.

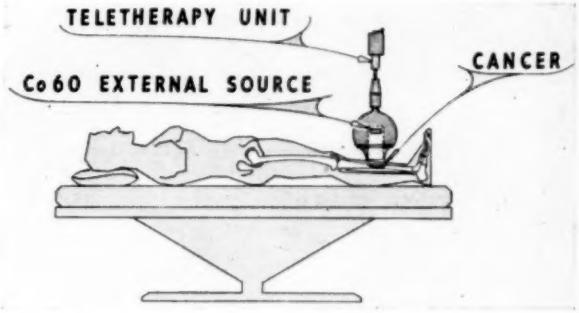
MINIMUM EQUIPMENT

In order to convey some idea of laboratory facilities and instrumentation needed, the minimum requirements are discussed here. These are general requirements since specific requirements depend on the characteristics and amount of the various isotopes to be used. As for space, it is necessary that two rooms be provided, (1) the "hot element" storage and processing laboratory, and



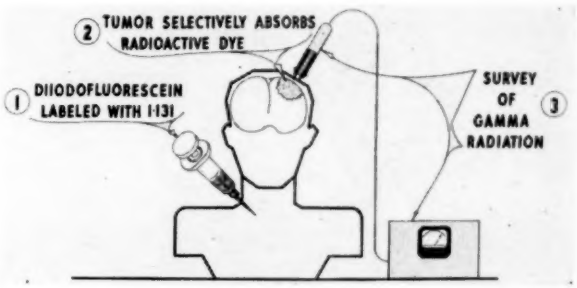
RADIOACTIVE PHOSPHORUS—P 32

Used for treatment of polycythemia vera and chronic leukemia. P 32 is selectively absorbed, emits a slow protracted irradiation and inhibits blood cell production.



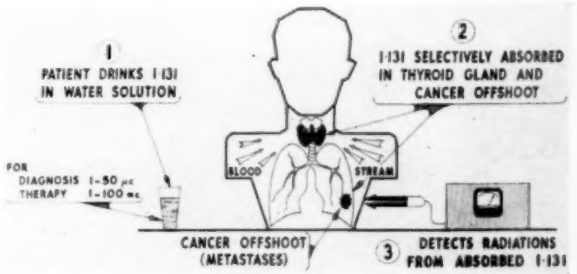
RADIOACTIVE COBALT—Co 60

For external gamma ray treatment has advantages of highly penetrating irradiation with greater intensities possible than with radium, its energy is nearly uniform, and it is inexpensive.



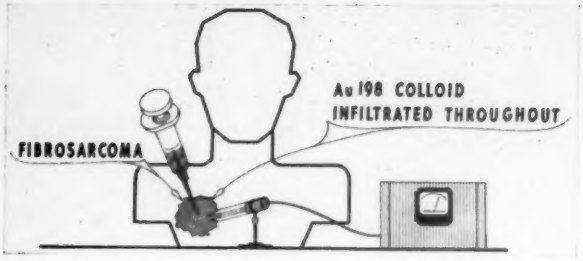
RADIOACTIVE IODINE—I 131

For detecting brain tumor with radioactive dye. Advantages include diagnosis without surgery and finding tumors not detected by other means.



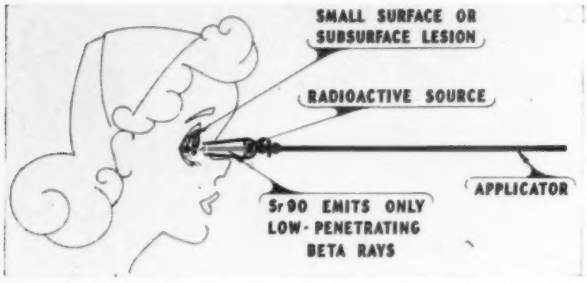
RADIOACTIVE IODINE—I 131

For diagnosis and treatment of thyroid gland disorders including hyperthyroidism, location of metastases and treatment of thyroid cancer and metastases.



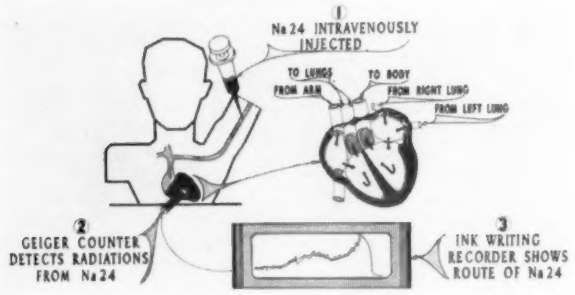
RADIOACTIVE GOLD—Au 198

For treatment of diseases of lymphoid system and multiple localized lesions. Has advantages of localized irradiation, ease of administration, and colloid does not enter body processes.



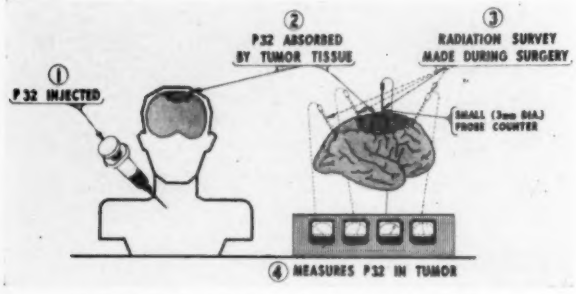
RADIOACTIVE STRONTIUM—Sr 90

For treatment of small lesions it removes benign tumors without surgery, and with no extraneous gamma radiation. Is readily adaptable to therapy of postoperative lesions.



RADIOACTIVE SODIUM—Nd 24

For diagnosis of pumping qualities of heart. It gives information not obtainable by other means, diagnosis may be made in 1 to 2 minutes with no discomfort to patient. Isotope is rapidly eliminated.



RADIOACTIVE PHOSPHORUS— P32

For locating extent of brain tumors. Absorption is 5 to 100 times greater in tumor tissue, the limits of the tumor mass can be accurately determined, and the method can be used during surgery.

(2) the measurement room. These two rooms should not be in the same general area, being separated by at least 50 feet. The Measurement room should also be removed from any roentgen therapy equipment. The "hot element" laboratory need not be a large room but should be equipped with a chemical hood designed especially for radioactive isotope work; a small shielded storage unit; a chemical work bench and a large sink with easily decontaminated working surfaces, such as stainless steel; adequate shielding materials, e.g. lead, leucite, iron bricks, x-ray glass; a personnel monitoring device, e.g. pocket meter, film badge; a contamination monitor, e.g. Geiger counter; a quantitative survey meter, e.g. cutie pie, counting rate meters; remote control pipetter; remote handling equipment and protective clothing including surgical gloves. Wooden or concrete floors should be covered with linoleum, rubber, or asphalt tile.

The shielded storage unit may consist simply of lead bricks stacked to form a barrier behind which samples are stored or may be a more elaborate structure made of concrete or lead with removable sliding sample holders.

The measurement room requires only that electrical outlets be available. Several types of Geiger-Müller counting tubes provided with lead shielding and at least two Geiger-Müller scaler units, preferably on movable carts, should be kept in this room. These are used for the determination of the radioactivity of low level samples and uptake measurements on patients.

It should be emphasized that the equipment and facilities necessary for handling isotopes in the hospital does not compare with that necessary in Atomic Energy installations. This is true since only relatively small amounts of radioactivity are processed.

The cost for the minimum equipment described above can be kept under $5,000 by careful planning; however, for more elaborate facilities it is possible to spend more than $50,000 without difficulty.

After the establishment of the Isotope Committee and laboratory facilities, the institution is eligible to utilize radioactive materials. Permission to purchase such materials may be granted to the institution after application forms are submitted and approved by the Isotopes Division of the U.S. Atomic Energy Commission. The procurement procedure is carefully set forth in the Isotopes Division publication entitled *Isotopes*[1] and should be referred to before requesting allocation. Most of the isotopes used in medicine are available from the Oak Ridge National Laboratory, Oak Ridge, Tennessee and are shipped on receipt of the approved allocation form. The iso-

Ditches and pools near Khurramabad, Iran,

topes are shipped with the container placed in a specially prepared lead ingot which is returnable to Oak Ridge after removal of the isotope in the "hot element" laboratory.

The information given above is rather general in nature since space does not permit a discussion of the details involved since such information is readily available elsewhere in printed form. Reference is made to the more important sources of information at the end of this paper. In addition to published material, the Isotopes Division of the U.S. Atomic Energy Commission, Oak Ridge, Tennessee, stands ready to provide information to any person requesting assistance of any kind. The Oak Ridge Institute of Nuclear Studies provides six four-week radioisotope training programs each year at Oak Ridge for those who desire such training, and several universities are providing special instruction in this area.

CONCLUSION

In conclusion one might logically again ask, "what can the hospital pharmacist contribute to the radioisotope program in the hospital?" The answer—

(1) Become authoritatively informed on the basic principles, applications, methods of obtaining, facilities necessary, means of control, and source of information of radioactive isotopes used in medical practice.

(2) Encourage the hospital administration to look into the possibilities of establishing necessary facilities for isotope utilization.

(3) Take active interest in and/or assist in the radioisotope program of the institution.

It is well to remember that the advancement of any profession or field of endeavor is made only through the application, without undue hesitation, of extra special effort in the realm of the undeveloped and unknown areas.

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‡ Obtainable from the Superintendent of Documents, Washington 25, D.C.

New National Formulary IX Now Available

The Council of the American Pharmaceutical Association has announced publication of the Ninth Edition of the *National Formulary*, which is one of the official compendia for drugs under the provisions of Federal and State Food, Drug, and Cosmetic Laws.

Titles and standards for 155 drugs for which official standards would not otherwise be provided have been added to *N. F. IX* during the recently-completed revision program. Among these new admissions are such drugs and preparations as amobarbital (Amytal) and several dosage forms, anthralin and anthralin ointment, camphorated parachlorophenol, dehydrocholic acid and tablets, glutamic acid hydrochloride, four liver products for oral use, racephedrine hydrochloride, its tablets and solution, rutin and rutin tablets, undecylenic acid, compound undecylenic acid ointment, zinc undecylenate, and many others. In addition, formulas and standards are continued in the *National Formulary* for many *U.S.P. XIII* drugs not admitted to *U.S.P. XIV*.

The book is published by the Mack Publishing Company in Easton, Pennsylvania, and is procurable through most wholesale drug houses.

Ditches and pools near Khurramabad, Iran, are sprayed with oil to check growth of mosquito larvae.

Chemotherapy of

MALARIA

By BERNARD E. CONLEY

THE IDEAL antimalarial has not been found. To meet this definition, a compound should have prophylactic, suppressive and curative properties against the various species and strains of malarial parasites which infect man. In addition, it should possess a wide margin of safety for both light and dark skinned races, be cheap and abundant, and be effective against the various manifestations of the disease. In order to fully appreciate the urgent need for such an agent, knowledge of the prevalence of malaria, the complex cycle of its development in the human host and the usefulness and limitations of available drugs, is necessary.

DISTRIBUTION

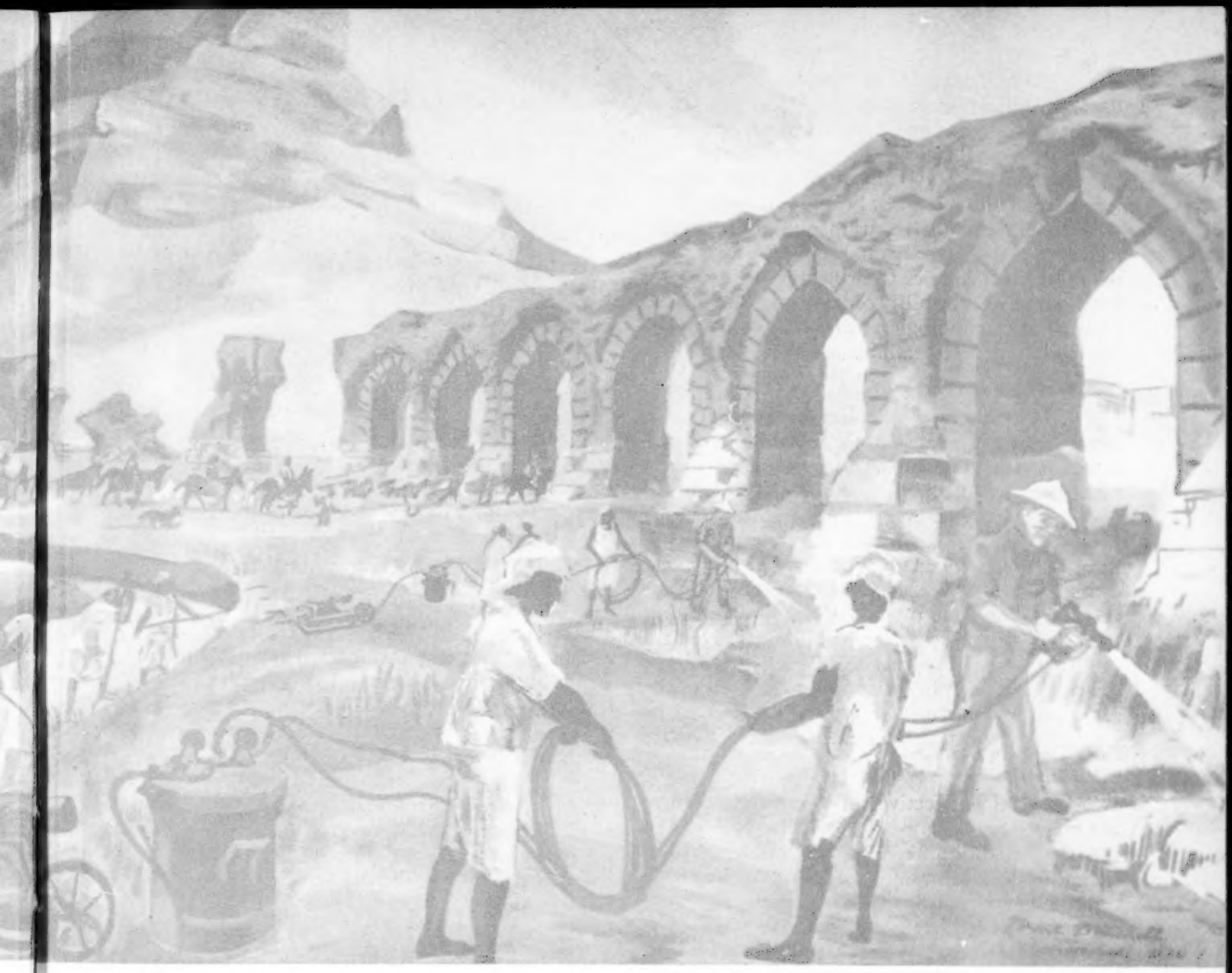
Malaria is the most prevalent and widely distributed of the infectious diseases and ranks second only to helminthiasis as the most common affliction of mankind. It has been estimated that approximately 14 per cent of the earth's population is annually burdened with this disease of which 1 per cent of the cases are fatal. Contrary to popular belief, it is not confined to the tropics. The distribution of malaria is world wide although its morbidity and mortality rates are highest in those countries which possess a warm and humid climate. At one time, malaria was endemic in both the northern and southern portions of the United States and only recently was it removed from the list of serious health conditions in the South. However, in spite of the progress which has been made both here and abroad in the chemotherapy and environmental control of malaria, it continues to be a major health problem in many of the economically undeveloped or so called "backward areas" of the world.

CAUSATIVE AGENTS

Malaria is not one but four diseases whose treatment and control require an understanding of the underlying biology and methods of propagation of the several species of parasites and disease vectors concerned. It is caused by protozoa belonging to the genus *Plasmodium* of which four species are pathogenic for man. *Plasmodium vivax* causes benign tertian malaria, a chronic debilitating disease with a low mortality rate, frequent relapses after treatment, and a singular resistance to most forms of drug therapy. *Plasmodium falciparum* produces malignant tertian (subtertian, estivo-autumnal) malaria which is characterized by a high incidence, severe symptoms, minimal tendance to relapse, and a susceptibility to treatment. Quartan malaria develops from infection by *P. malariae* and is an uncommon form with a high mortality rate. A fourth type of malaria in man is induced by *P. ovale*. It is of rare occurrence.

Anopheles mosquitoes are the only known vectors of human malaria. Approximately 60 species of the Anopheles genus have been incriminated in the transmission of the infection, only a few of which are of practical importance.

BERNARD E. CONLEY is secretary of the Committee on Pesticides of the American Medical Association.



HOSTS

Man is the most intermediate host in the life cycle of these parasites. The principal host is the anopheline mosquito in which reproduction takes place. Sporozoite (infective) forms of the organism are injected into man by the female mosquito during its act of feeding. These transitional forms enter the blood stream of the victim and subsequently undergo a course of development in the tissues, the exact locale of which is still unknown. Studies with avian forms of malaria suggests that the sporozoites "incubate" in the endothelial cells of the liver, spleen, and bone marrow where they persist for varying periods of time, depending on the species and strain of parasite involved. Symptoms of infection are delayed until the organisms migrate to the red blood cells where they grow and multiply causing the infected erythrocytes to rupture. The new generation of parasites released by the ruptured blood cells may either enter other red cells and repeat the segmentation process or attain their full growth without undergoing segmentation. The latter type become the gametocytes which must be ingested by a mosquito during its blood meal on an infected person before they can multiply further.

CYCLE

The invasion and subsequent destruction of red blood cells follows a pattern for each species of parasites. The erythrocytic cycle for *P. vivax* is 48 hours; for *P. malariae* 72 hours, and for *P. falciparum* 24 to 48 hours. The acute phase is manifested by fevers and chills which occur with the rupture of the red cells. The eradication of the erthrocytic forms of the parasite brings about a prompt remission of symptoms; however, the infection may still persist in the tissues and parasites may be periodically discharged into the bloodstream. The partial expulsion of tissue forms produces relapses of the disease which continues until all the tissue parasites have been expelled. Treatment, therefore, must be directed

toward eradication of both the blood and tissue forms of the organism. Unfortunately, no commercially available drug is equally effective for the various types of infection or the various forms in which the several organisms exist. The latter consideration is due to differences in the responsiveness of individual species and strains within a given species to drug treatment. Variations in the susceptibility of individuals and races and their immunologic responses also influence the effectiveness of available antimalarials.

CHEMOTHERAPY

The chemotherapy of malaria is aimed at management of the acute attack, eradication of the infection when possible, suppression of future manifestations of the disease and the prevention of new infections. Synthetic compounds with prophylactic, suppressive, or curative properties have been developed in recent years. No single compound, however, has been found to be acceptable for all the types and stages of infection because of toxicity or selectivity for either the tissue or erythrocytic forms of the parasites. Consequently, a number of drugs have to be used whose selection depends on the type of malaria to be treated and the type of management desired.

CHOICE

The principal effective antimalarials in current use include the natural compound, quinine, and the synthetics, quinacrine, chloroquine, chlorquanide, pentaquine and pamaquine. Isopentaquine and primaquine are promising additions to the list of synthetics but they have not come into general use as yet. With the exception of quinine, all of these compounds are effective in producing complete cures of quartan malaria. Chlorquanide is considered the drug of choice for infections of this type. Most of these compounds are suppressives and will produce symptomatic relief during clinical attacks of benign tertian malaria but relapses are frequent, the incidence varying with the drug used. Chloroquine and chlorquanide are considered to be the best available drugs for this purpose. Chloroquine is more toxic and expensive than chlorquanide but acts more rapidly and is effective against certain strains which are resistant to chlorquanide. Combination therapy employing pamaquine or pentaquine with quinine, and pamaquine with chlorquanide is used to reduce relapse rates of *vivax* infections and to ultimately effect a complete cure. The pentaquine-quinine combination is thought to be superior both on the basis of comparative activity and toxicity. Preliminary evidence indicates that isopentaquine is more active and less toxic than either pamaquine or pentaquine. Available information on the toxicity of primaquine is insufficient to make a comparison; however, it is stated to be the first material found which will cure *vivax* infections in single daily doses without the use of quinine.

INVESTIGATIONS

The development of a truly adequate antimalarial is hindered by the lack of a satisfactory test animal. No suitable laboratory animal can be infected with species of the malarial parasites which attack humans. New therapeutic agents have been tried on humans with artificially induced malaria. The limitations of this method are obvious. Chicks, canaries, ducks, monkeys, and rats have also been used as test animals. New compounds are frequently tried against bird malaria. Studies of avian forms of the infection have the inherent shortcoming that bird parasites have a somewhat different response to drugs than those species infecting humans. The use of monkeys is impractical because the number of available animals precludes large scale investigations. Laboratory rats infected with *P. berglei,* a species of parasite recently discovered in Congo tree rats which more closely resembles those species found in humans, provides the prospect of an improved procedure for research.

Current investigations with antibiotics suggest that eventually an antimalarial from this group of materials may be uncovered which would be effective against human forms of the disease. The established antibiotics are principally effective against bacteria, rickettsiae and a few of the larger viruses, although it has been reported that several are active against certain protozoa such as amoebae and paramecia. An antibiotic has recently been isolated from the wings of a Philippine butterfly which exerted definite antibiotic effects on erthrocytic parasites in humans. This is the first antibiotic that has been found to be active against the human blood forms of the disease and it introduces the possibility of a new approach to the medical management of malaria.

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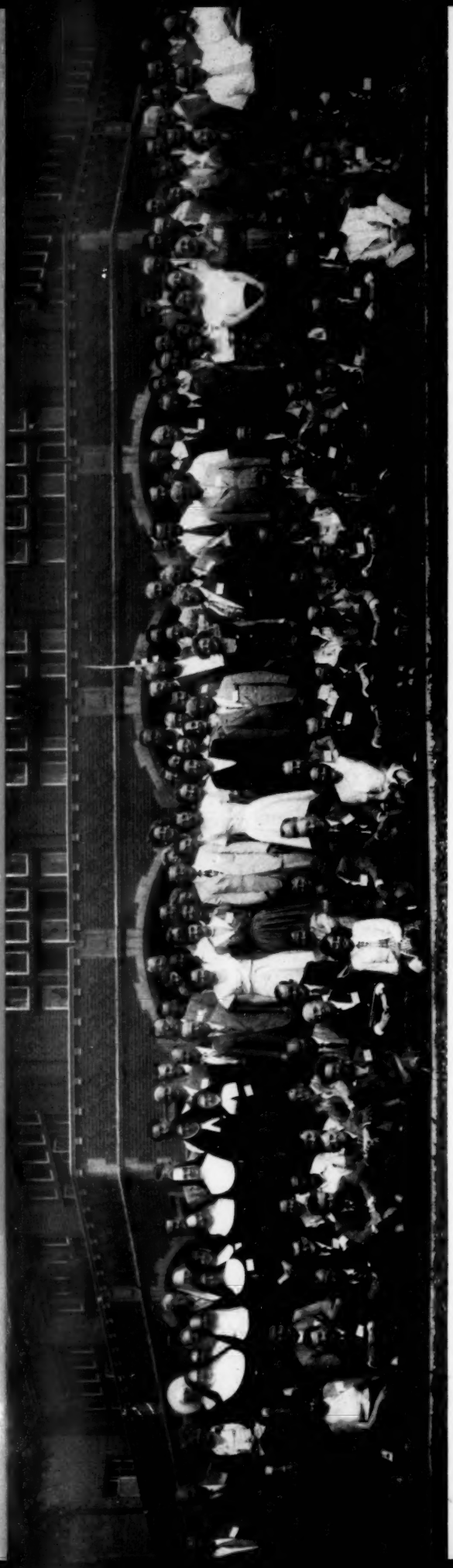

Enrollees at the Sixth Institute on Hospital Pharmacy, Ann Arbor, Mich., June 1950.

Report from the

SIXTH INSTITUTE

The Sixth Institute on Hospital Pharmacy held in Ann Arbor, Mich. June 19 to 23 inclusive was keynoted by an enthusiasm comparable only to the first institute four years earlier. For those many hospital pharmacists who attended the first institute, there was real justification to reflect upon the progress made in hospital pharmacy during the past four years. These people were undoubtedly amazed by their own progress and interested that our professional specialty is bidding interest to a number of newcomers.

The sessions of the institute were held in the main lounge of the Mosher Residence Hall, only a short distance from the University Hospital and complete accommodations were provided in the same building. Though there were intervals to get acquainted, reacquaint and visit, the time was planned by the program committee so that there was no doubt of the purpose of the institute—to give to the enrollees a concise and specific program of the various phases of hospital pharmacy.

The institute was again sponsored by the American Hospital Association, the American Pharmaceutical Association, and the American Society of Hospital Pharmacists. Mr. Leonard P. Goudy, secretary of the Council of Administrative Practice of the American Hospital Association acted as coordinator in the absence of Dr. Charles T. Dolezal.

The institute was opened by greetings first from the representatives of the sponsoring organizations. These included Mr. Leonard P. Goudy of the American Hospital Association, Dr. Robert P. Fischelis of the American Pharmaceutical Association and Mr. I. Thomas Reamer for the American Society of Hospital Pharmacists. Greetings were also extended by Dr. A. C. Kerlikowske of the University Hos-



Left to right: Recess at the Institute with coffee and cokes; Frederick Coller M.D., professor of Surgery at the University of Michigan and president of the American College of Surgeons speaks with Dr. Robert P. Fischelis in the background; a panel discussion on the Pharmacy and Therapeutics Committee with Jane Rogan, Hans Hansen and Charles Barnett.

pital, Mr. Don E. Francke of the University Hospital Pharmacy and Dean Charles H. Stocking on behalf of the College of Pharmacy.

The first two days of the institute were devoted to hospital pharmacy organization and administration which was developed from the fundamental principles of these broad themes as presented by the controller of the University of Michigan, Dr. Wilbur K. Pierpont, to the specifically essential business records as discussed by Mr. John Zugich. Dr. Pierpont pointed out the necessity for stating clearly and precisely the purpose for which the enterprise exists; further, to subdivide the enterprise into working units which have specific and definable activities.

Mr. Philip J. Olin, personnel officer at the University of Michigan Hospital presented "Principles of Departmental Organization and Administration Within the Hospital" in which he pointed out that among members of a department there must be a common understanding of the objective and a coordination of effort.

The greatest opportunities for expansion of the hospital pharmacy lies in the development of a manufacturing program and assistance to other departments noted Mr. Arthur J. Sullivan, superintendent at Springfield City Hospital, Springfield, Ohio in his discussion of "Expanding Pharmacy Service in the Hospital." Mr. Sullivan, like several other speakers on the hospital pharmacy organization and administration theme, believes that most important for the hospital pharmacist is a close cooperation in the health team. Dr. Frederick A. Coller, professor of Surgery at the University of Michigan and president of the American College of Surgeons, in presenting "The Attitudes and Responsibility of the Pharmacist as a Member of the Medical Team" illustrated the need for cooperation between the pharmacist and physician by a discussion of the benefits to the patient. This can be obtained by the physician making his needs known to the pharmacist and the pharmacist in turn meeting these needs through the use of the knowledge of his profession.

The organization and administration of a hospital pharmacy was developed further by Dr. W. Arthur Purdum speaking on "The Application of the Minimum Standards to Pharmacy Organization and Policy," Dr. John R. McGibony, medical director of the U. S. Public Health Service who spoke on "The Elements of Planning a New Pharmacy Department or Pharmacy Expansion," Mr. Hans S. Hansen, administrator, Grant Hospital, Chicago giving "A Rational Basis for Prescription Charges," and Mr. Herbert L. Flack who discussed "Economies in the Pharmacy."

A full day was devoted to a presentation of the current trends in pharmacology and therapeutics by six prominent members of the University of Michigan faculty. The discussion included autonomic drugs, cardiac drugs, an evaluation of the antihistaminics, the status of antibiotics, drugs used in arthritis, and those used in anemias and related blood disorders.

A highlight of the institute, both from the standpoint of the active enthusiasm on the part of the registrants and the valuable suggestions which evolved from each group, was the workshop on the problems in hospital pharmacy. The enrollees were divided into seven groups, each with a chairman and secretary. The chairmen then during the afternoon gave oral summaries of the discussions and decisions reached before the entire group at which time there were questions and further suggestions from the floor.

With a total of 153 enrollees from twenty-eight states, Canada and the Phillippines, the Sixth Institute on Hospital Pharmacy could not have but provided a challenge to every student to return to his respective institution with new ideas, broader interests, and a determination to make himself a more integral part of the health team with which he is associated, his profession and his community.

OFFICIAL REPORTS

American Society of Hospital Pharmacists

Atlantic City Meeting — April 1950

American Society of Hospital Pharmacists

PROCEEDINGS 1949-50

Reports of Officers and Committees

Report of the President

HERBERT L. FLACK

This is the seventh annual report of the presiding officer of the American Society of Hospital Pharmacists. In view of the fact that many reports have previously been presented this morning, I will attempt to merely review the past year's accomplishments, such as they have been, and offer recommendations for future action.

The Past

The most outstanding event of my year in office was the appointment of a director of the Division of Hospital Pharmacy. The appointment of Mr. Don Francke as director of the Division on a part-time basis should give the entire membership much satisfaction. This is the first step toward the ultimate goal of a full-time ex-pharmacist as Division director. There are many important projects for the Division to accomplish, and I feel that by this appointment, many of these will be completed in the coming year. Who knows but what the following year will see the appointment of a full-time director.

Probably the next most important accomplishment this past year was the announcement that the Minimum Standard for Pharmacies in Hospitals had been presented out of committee. For many years this important project has been in process of completion and I am proud to see it presented out of committee this past year and actually presented to several of the proper organizations for approval.

At this point I had better pause and remind the group that these accomplishments were not brought about by my activities, but by the activities of many of the membership who gave of their spare time to work on these projects. This sacrifice of time and effort is hereby acknowledged as a valuable contribution to hospital practice. All of us have benefited by the efforts of a few. Let us hope that the coming year will find more persons willing to volunteer for committee activity and to give of their free time for the good of all in hospital pharmacy.

This year showed a membership increase of over 25 per cent of those members on roll as of April, 1949. I challenge you to do as well in future years and acknowledge the cooperation and support of the membership committee in this effort. Besides this increase in membership, we have seen the birth of several new chapters affiliated with our organization, five such chapters being affiliated this past year, and three others which are considering affiliation. This I offer as another challenge to a future committee to beat.

With regard to the Division of Hospital Pharmacy, I would remind the membership that the Society is supporting the Division financially as well as in other aspects. The income from advertising is to be used to increase the possibilities of Division action this coming year, and probably in future years.

This year saw the birth of an official consultant service for hospital pharmacy. As a part of the Division functions, this consultant service should benefit all of us who are in existing structures, since we have the benefit of its advice and guidance. It should be of even greater value to those who are to enter the new structures now in process, for if the administration of the new hospital is at all open-minded, it will have consulted the Division of Hospital Pharmacy on its plans for pharmacy service.

To prove the need for this consultant service, let me offer two examples from the Philadelphia area. We have a new 400-bed hospital under construction and a new outpatient health center being built. In the hospital, the director was glad for my offer of assistance; in fact he did not like the plans that had been presented for internal construction of the Pharmacy, and was not certain of the next step in planning his own Pharmacy. In the health center, the director, after I had explained my purpose in writing to him, said, "Why didn't you come here one year ago?" He mentioned that probably much money could have been saved and planning might have progressed more satisfactorily had some hospital pharmacist been available for consultation. Next, this director had never thought of asking for such consultation. I am positive that this situation is occurring every week throughout the nation. Our only problem now is to acquaint the administrators and architects with the fact that we have such a planning service. Before concluding this thought let me state that the architects on this health center had planned the pharmacy with aid of one of the equipment houses. As a result of this, the fixtures were placed around the walls, with no thought being given to the most desirable location for outpatient dispensing and with apparently no knowledge of outpatient practices being used in this determination. I sincerely believe that the Division must contact all administrators and planners this coming year so that such mistakes will not be continued in the future.

I would like to acknowledge the appointment this year of Dr. Robert Cadmus as chairman of the Pharmacy Committee of the American Hospital Association. Dr. Cadmus has been very cooperative in this important position. He has been very active and is a most enthusiastic supporter of good pharmaceutical service for the hospital.

The majority of you know that the Executive Committee held its first complete meeting with expenses being paid by the Division of Hospital Pharmacy. We also held a meeting of the Policy Committee of the Division.

You have heard the various committee reports in which the Minimum Standard for Pharmacy Internships in Hospitals was presented. The syllabus for a course in hospital pharmacy has been prepared this year; the constitution and by-laws have been revised; narcotic forms and procedures have been reviewed and recommendations made; there was completed a survey of the State Boards of Pharmacy concerning the regulation of pharmacy in hospitals and consideration has been given to production of a standard container for large volume parenteral solutions. You have all viewed the new Society BULLETIN which has possibility of becoming the outstanding publication of professional pharmacy. In 1949 there were three institutes or training programs held for hospital pharmacists, and two more are being planned for 1950. In the lobby of this convention, you have viewed the three panel exhibit on hospital pharmacy which was prepared this year and was displayed at several hospital meetings and at many pharmacy meetings. There were many other projects accomplished this year, all of them being worth-while and none of them being possible without the complete support and cooperation of the membership. Thanks to all who played a part in the progress of this year.

Future Action

The future presents many challenges for Mr. Reamer and his committees and for the entire membership. One important project is to obtain direct representation on the U.S. Pharmacopoeial Convention.* Hospital pharmacy educational programs challenge us in that we are not at present offering much to the many hundred undergraduate students that will entice them into hospital pharmacy practice. We must present at least an informative course in hospital pharmacy to every undergraduate student in pharmacy schools and we must offer them the opportunity of working, even for a short period of time, in a hospital pharmacy so that they may become imbued with the spirit and may know the enjoyment that accompanies work in the hospital pharmacy.

*Editor's Note: This has since been accomplished. At the decennial meeting of the U.S. Pharmacopoeial Convention in Washington, D.C., May 1950, the Constitution of the U.S.P. Convention was amended to include the American Society of Hospital Pharmacists in its membership.

We must seek to obtain a speaker for the next (1951) convention of the American Hospital Association. This speaker should discuss the consultant service of the Division of Hospital Pharmacy so that all administrators and their associates will become aware of the value and opportunities that lie in this service. We tried to arrange such a speaker for this past year, but began too late. I recommend an approach to the proper authorities in the late summer, for by November, the program will be well advanced, as we found to our sorrow.

I would recommend some sort of comment on the consultant service and on other phases of our information service, to appear in an issue of the *Architectural Record*. This will make such information available to these persons who are planning hospital pharmacies. As a result of this, we should anticipate much more effective hospital pharmacy planning than we have known in the past years.

The Committee on Membership and Organization should plan the formation of affiliated chapters to stimulate growth of our organization. This would be possible through plotting the location of membership and wherever there is sufficient concentration, then planning an initial meeting and providing the stimulus to carry through to formation of a chapter and ultimate affiliation with the national organization.

While discussing affiliated chapters, I recommend that each chapter subscribe to the several journals that deal with hospitals and pharmaceutical practice, and prepare a definite routing for each copy of the journal so that all journals reach all members of the chapter. I admit it is difficult for each chief pharmacist or for each hospital to subscribe to the twenty-five or thirty journals that should be read by the modern hospital pharmacist. By such a project as I propose, no great financial burden would be imposed upon any one pharmacist or hospital; yet all members would be privileged to review the literature as it is published.

On the subject of literature, I recommend that each pharmacist subscribe to his own book-of-the-month club. By this I mean that each month he requisition or purchase or order for purchase by the hospital, one book on some subject of value to the hospital pharmacist. By ordering a minimum of one book per month, and by reading or at least reviewing same, the pharmacist will keep informed and will be well prepared to practice his vocation.

I recommend that each affiliated chapter plan an educational program based on the syllabus for a course in hospital pharmacy. The members could take the various subjects in this outline and prepare a discussion or lead a discussion on the topic as part of each meeting. I think it true that in every affiliated chapter, some persons are better versed on one phase of hospital pharmacy practice than others are. Thus by having these persons discuss their specialty of our specialty, we stand to gain and to improve hospital pharmacy practice. This could be the same as a refresher course. It is presently being accomplished by several of the affiliated chapters to the enjoyment and benefit of all.

I recommend that the president-elect, Mr. Reamer, attempt to schedule an annual meeting of the Council of the American Pharmaceutical Association with the Executive Committee of the American Society of Hospital Pharmacists. A precedent for such an annual meeting was established in January 1950. Both groups benefited by such a meeting and the nature of material that can be presented here is such that these meetings should be continued, just as meetings of the Council with other pharmaceutical organizations are held annually.

In conclusion I want to thank Dr. Robert P. Fischelis, Don Francke, Gloria Niemeyer, the several Committee Chairmen, the many Committee members, and the entire membership for the cooperation that they exhibited this year, which helped to make the year of some value to our over-all practice. We did accomplish many things,. though we left many unattended, to be accomplished in the coming year. I could have talked here for hours about other things that have transpired this year and about other accomplishments, but they have been adequately presented by the several Committee Chairmen and by others. I have honestly enjoyed almost every minute of my term of office, and those that I have not enjoyed have been of educational value. It has been my privilege to serve the membership and I hope the job has been of some satisfaction to others than myself. So much for this past year, we now look for a busy year under the capable guidance of Mr. I. Thomas Reamer, to whom I wish the best of luck, and the health and happiness to carry on.

Report of the Secretary

GLORIA NIEMEYER

A change in the Society's By-Laws made at the 1948 meeting provides for the election of a secretary annually upon nomination of the Executive Committee. At the 1949 meeting of the A.S.H.P., Miss Gloria Niemeyer, assistant director of the Division of Hospital Pharmacy, was elected secretary of the A.S.H.P.

Since the agreement between the Executive Committee of the A.S.H.P. and the Council of the A.Ph.A. establishing the Division of Hospital Pharmacy states that one of the functions of the Division is to further the objectives of the A.S.H.P. and to integrate the activities of the two organizations, it was deemed advisable to elect a secretary who is an employee of the A.Ph.A. As a result of this action, the secretarial duties in connection with A.S.H.P. activities were carried out at A.Ph.A. headquarters during the past year. Since the activities of the Society are so closely related to the activities of the Division of Hospital Pharmacy, this plan has proved successful and has brought about mutual cooperation between the A.Ph.A. and the A.S.H.P.

It should be kept in mind that the A.S.H.P. continues to operate as a separate organization with its own membership rolls, separate dues, committee activities, etc. The advantages in having a central office to carry out organizational activities are many.

With the transference of the A.S.H.P. secretary's duties to the A.Ph.A. headquarters, it was necessary to purchase files for keeping permanent A.S.H.P. records.

On approval of the Executive Committee, the treasurer's old records have been transferred to A.Ph.A. headquarters and will be stored there. It was necessary during the past two years to set up a complete new set of books.

A.S.H.P. membership activities were carried out by the secretary in cooperation with the Division of Hospital Pharmacy. This included maintenance of the roster of members, and cooperation with the Committee on Membership and Organization. At the suggestion of the chairman of the Membership and Organization Committee and in accordance with a resolution passed at the 1949 meeting, a membership campaign was carried out on a local basis during the past year. Accordingly, a Sub-Committee on Membership and Organization was appointed with one or more representatives in each state. The sub-committee members compiled lists of hospital pharmacists practicing in the state and these were sent to the headquarters of the American Pharmaceutical Association for checking against membership in the A.Ph.A. and A.S.H.P. To those who were not members, invitations to join the two organizations along with sample copies of the *Journals* of the A.Ph.A. and THE BULLETIN of the A.S.H.P. were sent to each prospective member.

Total membership in the Society is now 1,500, with a gain of approximately 300 members during the past year.

There has been considerable interest in the organization of local affiliated chapters of A.S.H.P. During the past year, five new chapters have applied for affiliation with the national organization since our last convention. Upon approval of the Executive Committee, the following new chapters have been accepted:

The Western Pennsylvania Society of Hospital Pharmacists
The Connecticut Society of Hospital Pharmacists
Hospital Pharmacists of the Puget Sound Area (Seattle, Wash.)
The Texas Society of Hospital Pharmacists
The Arizona Society of Hospital Pharmacists

Another chapter which has recently organized and contemplates affiliation with the A.S.H.P. is the Hospital Pharmacists of the Albany Area (Upper New York). Other hospital pharmacy organizations which have either organized or have preliminary plans for organization include the Indiana Society of Hospital Pharmacists and a group of hospital pharmacists in Southern New Jersey.

Ballots for election of A.S.H.P. officers were mailed from the secretary's office to all active members of the Society. The Canvassing Committee, appointed by the president, included Mrs. Katie Lim, Mt. Alto Hospital, Washington, D.C.; Dr. John S. Mitchell, Freedman's Hospital, Washington, D.C.; and Gloria Niemeyer, A.S.H.P. secretary. Officers duly elected for the coming year include President I. Thomas Reamer, Duke Hospital, Durham, N.C.; Vice-President Grover C. Bowles, Strong Memorial Hospital, Rochester, N.Y.; and Treasurer Sister Mary Jeanette, Mary Immaculate Hospital, Jamaica, N.Y.

Changes in the Constitution and By-Laws as voted on by the membership included the definition of a hospital pharmacist in order to clearly distinguish between an associate and an active member. Another change makes it mandatory that associate members be members of the A.Ph.A.

An A.S.H.P. Executive Committee meeting was made possible by the Division of Hospital Pharmacy during the past year. This meeting was held on December 11, at the headquarters of the A.Ph.A. following a meeting of the Division's Policy Committee on December 10. All members of the Executive Committee were present except Mr. William O. Hayes. In addition to members of the Executive Committee, the following were present by invitation: Robert P. Fischelis, director of the Division of Hospital Pharmacy; I. Thomas Reamer, president-elect of the A.S.H.P.; and Don E. Francke, editor of THE BULLETIN.

Matters of pertinent interest to the Society were discussed and officers and chairmen of the various committees reported on the activities to date.

There was also considerable discussion in regard to the relationship of the Society to the Division of Hospital Pharmacy and in accordance with the proposals of the Policy Committee which met on the previous day, the following agreement was approved:

1. That the agreement between the A.Ph.A. Council and the A.S.H.P. Executive Committee with respect to the management of the Division of Hospital Pharmacy be amended to provide for the appointment of a director of the Division of Hospital Pharmacy other than the secretary of the American Pharmaceutical Association and that such director may serve on a part-time basis.

2. That Mr. Don E. Francke be named director of the Division of Hospital Pharmacy on a part-time basis with the understanding that he will continue as editor of the A.S.H.P. BULLETIN.

3. That to supplement the A.S.H.P. annual dues, bulletin subscriptions and the routine A.Ph.A. Division appropriation, and thereby provide for the services of the director of the Division and to otherwise enlarge the scope of the activities of the Division, the A.Ph.A. be requested to authorize the inclusion of advertising as approved by the editorial staff of the Society.

Accordingly, THE BULLETIN has been printed and we are now accepting advertising as of January 1, 1950. Also, Mr. Don E. Francke has been appointed part-time director of the Division of Hospital Pharmacy, in which capacity he will also continue as editor of THE BULLETIN.

Representatives of the A.S.H.P. were to meet with the Council of the A.Ph.A. on January 6. The following people met with the Council and presented a statement in regard to the present status of hospital pharmacy activities including a note to the Council in appreciation for its support, a need for continued activity in the Division of Hospital Pharmacy, appointment of a hospital pharmacist as director of the Division, and the possibility of accepting advertising and printing in THE BULLETIN.

At the 1949 meeting of the A.S.H.P. House of Delegates, a recommendation was made that a subscription rate for THE BULLETIN be established. Accordingly the following subscription rates to THE BULLETIN are in effect beginning January 1950: One year subscription, $4.50; one year subscription, foreign, $5.00; discounts to agencies.

We now have approximately 350 subscriptions to THE BULLETIN. These include principally libraries, Veterans Administration Hospitals, and individual subscribers.

In accordance with the proposal of the Policy Committee which was approved by the A.S.H.P. Executive Committee on December 11, and the Council of the A.Ph.A. on January 6, advertising was accepted in THE BULLETIN beginning January 1, 1950. By doing this, it has been possible to print the publication. In line with the suggestions from the Executive Committee, advertising in THE BULLETIN is accepted from those advertisers which are currently advertising in the *Journals* of the A.Ph.A., Practical and Scientific Editions, or other firms which have equipment or material which would be of special interest to hospital pharmacists. The standards for accepting advertising are the same as those which have been set up by the A.Ph.A., with a few exceptions. A Committee on Publications was appointed to review copy for advertising when questions arise. This committee includes: W. Arthur Purdum, chairman; Don E. Francke; Walter Frazier; Sister Junilla; and Gloria Niemeyer.

In order to facilitate matters concerned with handling BULLETIN finances, and since there are a considerable number of transactions, it has been necessary to establish a bank account in the name of THE BULLETIN of the A.S.H.P. This account was established at The Washington Loan and Trust Company (West End Branch) in Washington, D.C. and books for handling it were set up at A.Ph.A. headquarters under a separate account. This account will be used to pay all bills relative to publishing of THE BULLETIN and to receive all monies from advertising, BULLETIN sales and subscriptions. In order to initiate the account, $1,500.00 was transferred from the Society's account and $1,000.00 is to be transferred from the account of the Division of Hospital Pharmacy, the latter to be repaid from THE BULLETIN account in due course. Actually, the $1,500 from the Society's account constitutes receipts for subscriptions to THE BULLETIN and therefore is a logical contribution from the Society.

It is believed that the receipts from advertising, BULLETIN sales and subscriptions will cover the cost of THE BULLETIN; consequently, the actual dues fee for members will go to the Society's account and will be received and disbursed by the Society's treasurer on approval of the Finance Committee.

According to the present set up, bills for expenses of THE BULLETIN will be approved by the editor and the secretary and checks for payment signed by the same individuals.

Since THE BULLETIN is now printed, beginning with the January-February 1950 issue, the A.S.H.P. no longer had use for the IBM Electromatic typewriter which was purchased in 1947 for preparing BULLETIN copy. The A.Ph.A. offered to buy the typewriter at the purchase price of $583.00. This was done with the approval of the Executive Committee, and the amount has been transferred to the Society's account.

Minutes of the Seventh Annual Meeting of the American Society of Hospital Pharmacists

May 1 and 2, 1950
Hotel Traymore—Atlantic City, N.J.

GLORIA NIEMEYER, *Secretary*

The seventh annual meeting of the American Society of Hospital Pharmacists was held at Hotel Traymore in Atlantic City, New Jersey, on May 1 and 2, 1950, in conjunction with the annual convention of the American Pharmaceutical Association.

The first session was called to order by President Herbert L. Flack on Monday, May 1, at 9:45 A.M. The group was welcomed by Mr. Ludwig Pesa, president of the New Jersey Society of Hospital Pharmacists, on behalf of the hospital pharmacists of New Jersey.

The minutes of the sixth annual meeting were not read since they were published in THE BULLETIN along with the other reports of the annual meeting.

President Flack appointed the following committees:

Committee on Nominations: Sister Mary Etheldreda, *chairman,* W. Arthur Purdum, Lillian Price, and J. R. Cathcart.

Committee on Resolutions: Grover C. Bowles, *chairman,* William Slabodnick, Amy Sroka, and George Archambault.

Since Dean Glenn L. Jenkins, president of the A.Ph.A., was present at the first session, Mr. Flack called upon him to speak to the group. He praised the work being carried out by the Society and made a few remarks in regard to future opportunities in this field.

Reports from the chairmen of various committees and officers were presented as follows: Report of the Committee on Membership and Organization, Walter Frazier, *chairman;* Report of the Committee on Minimum Standards, W. Arthur Purdum, *chairman;* Report of the Convention Committee, J. Robert Cathcart, *chairman;* Report of the Committee on Education, presented by Dr. Charles Schwartz in the absence of Charles Towne, *chairman;* Report of Committee on Constitution and By-Laws, Geraldine Stockert, *chairman.* Report of Committee on Narcotic Regulations, Milton Skolaut, *chairman;* Report of the Committee on Licensure and Drug Facilities, presented by Mrs. Jane Rogan in the absence of Thomas Sisk, *chairman;* Report of the Committee on Parenterals Containers, presented by Gloria Niemeyer in the absence of George Phillips, *chairman;* Report of the treasurer, presented by Gloria Niemeyer in the absence of Sister Mary Junilla, *treasurer;* and the Report of the secretary, Gloria Niemeyer.

The meeting was turned over to Vice-President W. Paul Briggs who presented President Herbert Flack to give the president's address. Mr. Reamer moved that the reports of the chairmen of committees and officers be accepted. The motion was seconded and carried.

The chair was turned over to President Flack who introduced Dr. Robert P. Fischelis. As chairman of the Policy Committee of the Division of Hospital Pharmacy, he presented a report on the activities of the Policy Committee and Mr. Francke, as director of the Division, presented a report on specific projects being carried out at A.Ph.A. headquarters, as well as plans for future expansion of Division activities.

The first session of the annual A.S.H.P. meeting was adjourned at 12 noon and reconvened at 2:00 P.M. Under unfinished business, Geraldine Stockert, *chairman* of the Committee on Constitution and By-Laws, presented her report. Mr. William Slabodnick moved that the Constitution and By-laws, as prepared by the Committee, with revisions made by the House of Delegates, be submitted to the membership for vote at the same time as the election of officers is held. Mrs. Thiel seconded the motion and it was carried.

The question was raised in regard to holding the annual Institute on Hospital Pharmacy in conjunction with the annual convention and it was reported by the president that the Executive Committee had considered such an arrangement, but it was not found practical at the present time.

Since Dr. C. H. Hampshire, secretary of the British Pharmacopoeia Commission, was present, Mr. Flack called on him to make a few remarks. He expressed his interest in hospital pharmacy and urged cooperation with hospital pharmacists in Great Britain.

The following papers were presented:

"Pricing Schedules for Medicaments for Ward, Semi-Private, Private and Outpatient Departments" (Panel Discussion) —C. Rufus Rorem, Ph.D., *moderator.* Participants included Herbert L. Flack, Anna D. Thiel, Grover C. Bowles, and Sister Mary Etheldreda.

"Behind the Scenes in Penicillin Research and Development" by Raymond Rettew, Ph.D.

Following the presentation of papers, the meeting was adjourned and reconvened at 9:30 A.M. on Tuesday at which time the following papers were presented:

"Disinfection and Antisepsis; Trends and Ideas" by Emil G. Klarmann, D.Sc.

"Studies on Decomposition of *Para*-Aminosalicylic Acid" by H. Altbach and C. Hurwitz.

"What a Hospital Administrator Expects of His Hospital Pharmacist" by Robert Cadmus, M.D.

"What a Hospital Pharmacist Expects of His Administrator" by William Slabodnick.

The Tuesday A.M. session was adjourned at 12:15 and the final session of the annual A.S.H.P. meeting convened at 2:00 P.M. The following papers were presented:

"Dermatological Vehicles" by E. E. Leuallen, D.Sc.

"The Development and Use of Isotopes in Medicine" by John E. Christian, Ph.D.

Under unfinished business, Dr. Charles Schwartz presented the question as to whether or not copies of the syllabus which was prepared by the Committee on Education would be available. He pointed out the need of such material by teachers of hospital pharmacy and schools of pharmacy. Dr. Schwartz recommended that the syllabus be presented to the Executive Committee for review. He moved that it be duplicated in its present form to be used as a guide. Since the A.S.H.P. does not have facilities for carrying out such a project, the motion was amended by adding through cooperation with the Division of Hospital Pharmacy. The motion was seconded by Marguerite McNeil and carried.

Announcements were made in regard to a tour of the hospital pharmacy at Atlantic City Hospital and the forthcoming meetings of the A.Ph.A. to be held during the week.

A report of the Resolutions Committee was presented as follows:

1.

Whereas, the Society is greatly indebted to the Council of the A.Ph.A. for its splendid support of the many programs involving the interest of hospital pharmacists, and

Whereas, it is the desire of the Society to convey to the A.Ph.A. an expression of this appreciation, be it

Resolved, that the American Society of Hospital Pharmacists express its appreciation to the Council of the American Pharmaceutical Association for its continued support of hospital pharmacy, and

Be it further resolved, that the secretary of the Society be instructed to transmit a copy of this Resolution to the Council.

2.

Whereas, the Society feels that it is of the utmost importance that unity exists among all branches of the profession, and

Whereas, it is noted that members of certain local Chapters are not members of the American Pharmaceutical Association and the American Society of Hospital Pharmacists, be it

Resolved, that the American Society of Hospital Pharmacists urge all members of affiliated Chapters to become members of the American Pharmaceutical Association and the American Society of Hospital Pharmacists, and

Be it further resolved, that the secretary of the Society be instructed to so notify all affiliated Chapters of this action by an appropriate letter.

3.

Whereas, the Society is greatly indebted to the various individuals and Committees who have contributed so much toward the establishment, approval and implementation of the Minimum Standards for Pharmacies in Hospitals, and

Whereas, the Society wishes to make

known its expression of appreciation to these individuals and committees, be it

Resolved, that the American Society of Hospital Pharmacists commend the various committees and individuals who have contributed toward the establishment, approval, and implementation of the Minimum Standards for Pharmacies in Hospitals, and

Be it further resolved, that the secretary of the Society be instructed to transmit a copy of this Resolution to each of the individuals and committees included in the above resolution, notifying them of this action and the Society's appreciation for their splendid services.

4.

Whereas, it is felt by many members of the Society and teachers of courses in hospital pharmacy in the accredited schools of pharmacy, that no means now exist for the proper exchange of ideas relative to the subject content of such courses, and

Whereas, it is the consensus of teachers of such subjects and hospital pharmacists, that a discussion of such matters at such a conference would materially aid teachers of hospital pharmacy subjects in preparing and presenting such subjects, be it

Resolved by the members of the American Society of Hospital Pharmacists that the Society approve the holding of an annual joint conference between teachers of formal hospital courses in accredited schools of pharmacy and the officers and officers-elect of the A.S.H.P., the members of the committee on Minimum Standards and the director of the Division of Hospital Pharmacy, said meeting to be announced in the printed program of the annual meeting of the A.Ph.A. and affiliated organizations. The purpose of said meeting being to discuss the content of hospital pharmacy courses as they are being taught and to offer constructive suggestions, if possible, regarding improvements that could be made in the presentation of the subject material in order for the profession to better provide adequate pharmaceutical instruction for this specialty of the profession which is ever growing in community and national importance, and,

Be it further resolved that this resolution, if adopted, be transmitted by the secretary of the Society to the Secretary of the Conference of Teachers of Pharmacy, requesting consideration of this resolution at its next annual meeting.

The chairman of the Resolutions Committee, Grover C. Bowles, moved that the resolutions be accepted. The motion was seconded and carried.

Sister Mary Etheldreda, chairman of the Committee on Nominations presented the following report:

Nominations for officers for the 1951-52 term.

For President: Charlie B. Barnett, St. Luke's Hospital, Jacksonville, Fla. and Walter M. Frazier, Springfield City Hospital, Springfield, Ohio.

Report of the Treasurer

SISTER MARY JUNILLA
May 1, 1949 to April 30, 1950

BALANCE AND RECEIPTS

BALANCE		
Deposit in The Bank of America, Los Angeles, California on May 16, 1949		$ 1,231.73
RECEIPTS		
Membership Dues	$ 4,588.70	
Subscription & Sales	1,216.23	
Miscellaneous Sales	583.00	
		$ 6,387.93
Total Balance and Receipts		$ 7,619.66

DISBURSEMENTS AND BALANCE

DISBURSEMENTS	$ 6,410.39
BALANCE	
Deposit in The Bank of America, Los Angeles, California on April 30, 1950	$ 1,209.27
Total Disbursements and Balance	$ 7,619.66

Detail of Receipts and Administration Expense attached.
An audit of the books has been made by Arthur J. Lyle, Accountant and Auditor.

For Vice-President: Jane L. Rogan, Evangelical Deaconess Hospital, Detroit, Mich. and Charles G. Towne, V. A. Regional Office, Los Angeles, Calif.

For Treasurer: Sister Mary Donatus, St. Clare's Hospital, New York, N.Y., and Sister M. Raphael Hilger, Sioux City, Iowa.

Dr. W. Arthur Purdum moved that the report of the Committee on Nominations be accepted. The motion was seconded by Milton Skolaut and carried.

At the final meeting of the Society new officers were installed, including President I. Thomas Reamer, Duke University Hospital, Durham, N.C.; Vice-President Grover Bowles, Strong Memorial Hospital, Rochester, N.Y.; Secretary Gloria Niemeyer, 2215 Constitution Ave., N.W., Washington, D.C.; and Treasurer Sister Mary Jeanette, Mary Immaculate Hospital, 152-11 89 Ave., Jamaica 2, N.Y. Following installation of the new officers, Mr. Reamer made a few comments pledging his support to the interests of the Society and named the committee appointments for the coming year.

The meeting was adjourned at 4:00 P.M.

Minutes of the House of Delegates

GLORIA NIEMEYER, *Secretary*

The second annual meeting of the House of Delegates of the American Society of Hospital Pharmacists was called to order by President Herbert Flack at 4:30 P.M. on April 30 at the Hotel Traymore in Atlantic City. Five members of the Executive Committee and representatives from ten local affiliated chapters were present, as well as Society members attending the convention.

Reports were received from each local chapter represented, and communications received from several which were not able to send delegates to the national convention.

On the nomination of the Executive Committee, and approval by the House of Delegates, Miss Gloria Niemeyer was elected secretary of the Society for the coming year.

At the request of the Committee on Constitution and By-Laws, the House of Delegates was asked to review the proposed Constitution and By-Laws and make suggested changes prior to presentation to the convention on the following day. The Constitution and By-Laws were read and suggested changes incorporated.

The House of Delegates adjourned at 6:00 P.M. and reconvened at 8:00 P.M. to further consider the proposed Constitution and By-Laws. Revisions were made for presentation to the membership in convention on the following day. The meeting adjourned at 11:00 P.M.

Report of Convention Committee

J. R. CATHCART, *Chairman*

The Convention Committee has been responsible for planning the program for the annual meeting. Speakers were contacted and final arrangements for the program were made by the chairman in cooperation with the secretary of the Society.

Due to the press of business, the committee has been unable to function at its maximum ability in securing materials to be displayed at meetings related to hospital pharmacy. However, the parent organization, through the cooperation of Dr. Fischelis and Gloria Niemeyer has carried on the exhibit of the Division of Hospital Pharmacy of the A.Ph.A. and the A.S.H.P. at a number of pertinent meetings. We are indeed grateful for this cooperative spirit.

Report of the Committee on Membership and Organization

WALTER FRAZIER, *Chairman*

The Committee on Membership and Organization consisting of Charlotte Reid Coleman, Ida Guber, Sister M. Raphael Hilger, Malcolm Hutton, Lillian Price and forty-five sub-committee members representing all sections of the nation, is pleased to report the following activity since April 15, 1949.

In accordance with the plan recommended by the Society at the Jacksonville meeting, the campaign was established as a regional and local project. Actually we attempted to develop it on a personal basis, emanating from forty-five vantage points.

We wish to acknowledge the genuine cooperation of the Division of Hospital Pharmacy of the American Pharmaceutical Association and the practical assistance of Dr. Fischelis, secretary of the American Pharmaceutical Association and Miss Gloria Niemeyer, secretary of the American Society of Hospital Pharmacists in the facilitation of our efforts.

Three hundred and eleven new members have been accepted, bringing the total enrollment to approximately one thousand five hundred members. Five new regional chapters have become affiliated with the Society during this period. These chapters are:

The Western Pennsylvania Society of Hospital Pharmacists

The Connecticut Society of Hospital Pharmacists

Hospital Pharmacists of the Puget Sound Area (Seattle, Wash.)

The Texas Society of Hospital Pharmacists

The Arizona Society of Hospital Pharmacists

Several other chapters have organized and we are sure that they will soon become affiliates. These include:

The Hospital Pharmacists of the Albany Area (Upper New York), and a group in Indiana which is already organized.

This is to inform the Society that the efforts of the individual sub-committee members are really worthy of commendation. National committee members efficiently performed both roles in their own states.

We are in a position to report evidence of new bonds of national unity and greater local and regional enthusiasm within the chapters. We urge the new administration to continue with, and enlarge upon the plan to reach new candidates personally. We suggest that courtesy memberships be established for hospital pharmacy interns. We recommend that new plans be devised to foster and encourage more active participation of the local and regional chapters in the advancement of the Society.

Report of the Committee on Minimum Standards

W. ARTHUR PURDUM, *Chairman*

The Committee on Minimum Standards has met twice during the association year. Both meetings were held in Baltimore at the Johns Hopkins Hospital. The first, on October 1, 1949, was attended by members of the committee and by Dr. Fischelis and Miss Niemeyer who were present by invitation of the chairman. The second was held on March 18, 1950 and was attended by Mr. Flack in addition to the committee members.

The first meeting was devoted to a consideration of the comments and criticisms on the proposed Minimum Standard for Pharmacies in Hospitals received from individuals and from affiliated chapters since the publication of these proposals approximately 13 months ago. The basic standard as well as the supplemental elaboration was revised in accordance with suggestions submitted and the best interests of hospital pharmacy. Since that time, the standard has been approved with only minor changes by the Executive Committee of the American Society of Hospital Pharmacists, the Policy Committee of the Division of Hospital Pharmacy, the Council of the American Pharmaceutical Association and the Council on Professional Practice of the American Hospital Association. The supplement to the standard now carries the approval of all the above named organizations with the exception of the American Hospital Association to which organization the supplement has not yet been submitted.

The standard, as approved, appeared in THE BULLETIN 7:1 (January-February) 1950 and reprints are available from the Division of Hospital Pharmacy. The proposed supplement will be reviewed by the new committee and copies will be available later.

The March meeting of the committee was held to revise the Minimum Standard for Pharmacy Internships in Hospitals as the result of numerous suggestions and criticisms sent to the committee. Quite naturally, we were unable to incorporate all suggestions received but all were given careful consideration. One notable change is the reduction from 2100 to 1920 in the minimum number of hours required for completion of an internship. This change was made at the suggestion of pharmacists in Government service so that the term of the internship would coincide with the Federal work year of 48 weeks of 40 hours each. Copies of the proposed standard are available but it is still subject to revision.

Recommendations

It is recommended that the Division of Hospital Pharmacy of the American Pharmaceutical Association present the Minimum Standard for Pharmacies in Hospitals to the American Medical Association and the American College of Surgeons, and that the Division urge the approval and adoption of the Standard by these bodies.

Attention is called to the fact that during the past year the American College of Surgeons has added several questions to the pharmacy section of the point rating system for hospitals and that the number of points allocated to the pharmacy department has been increased from ten to twenty. However, it is recognized by hospital pharmacists that these questions properly answered do not suffice to evaluate the hospital pharmacy. Therefore it is recommended that the incoming Committee on Minimum Standards draw up an adequate check list or questionnaire based on the new Minimum Standard for Pharmacies in Hospitals. When this has been accomplished and has received the approval of the American Society of Hospital Pharmacists and the American Pharmaceutical Association, it is recommended that the Division convey this check list to the American College of Surgeons and advocate its approval and adoption.

It is further recommended that the incoming Committee on Minimum Standards draw up a check list based on the Minimum Standard for Pharmacy Internships in Hospitals, this check list to serve as an aid in the evaluation and accreditation of intern training programs. It is suggested that the Division of Hospital Pharmacy undertake the responsibility for organizing the procedure of accreditation and act as the accrediting body for hospitals offering such training.

Editor Francke of THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS is to be commended for his excellent editorial "Needed—a Standard of Practice" which appeared in the September-October 1949 issue. Such a standard would benefit hospital pharmacy to a great degree and we recommend that the succeeding Committee on Minimum Standards carry Editor Francke's suggestions to fruition.

Finally, it is recommended that the Minimum Standard for Pharmacies in Hospitals and the Minimum Standard for Pharmacy Internships in Hospitals be reviewed at least every two years and amended if such is indicated.

Report of the Committee on Pharmacists in Government Service

W. O. HAYS, *Chairman*

Findings

1. That the pharmacists have again been omitted in the Army's present Table of Organization of hospitals. There is no direct assignment of a commissioned pharmacist to any Hospital Unit (includes Field, Station, General.)

2. That many excellent and aggressive pharmacists have resigned or contemplate resigning due to the unsettled conditions in the Government service. These fell in several classes:

(a) Local administrative reasons accounting for most.

(b) Lack of advancement commensurate with the job the individual was capable of doing.

(c) Low pay (mostly small hospitals).

3. That most pharmacists in Government service had an outside job to maintain their income equal to that they could make in the retail field. This means that if they would consider transferring the pharmacists over into the Department of Medicine and Surgery, a considerable raise in salary would have to be made to compensate for their loss of the privilege to "do with their time as they see fit" under the present regulations.

4. The cost of medicine used at most Government hospitals has risen due to the increased use of antibiotics and antihistaminics.

5. A review of the correspondence indicates that over 50 per cent of our correspondence was from non-members who were not familiar with either this committee or the A.Ph.A. Committee on Status of Pharmacists in Government Service.

Recommendations

1. That the Executive Committee suggest to the American Pharmaceutical Association that at least the chairman of the Committee on Pharmacists in Government Service of the American Society of Hospital Pharmacists be a member of the Committee on Status of Pharmacists in the Government Service in the A.Ph.A. It is believed that this would assist in strengthening the committee and expediting action of these two similar committees.

2. That, if the above is not carried out, all reports of this committee be submitted in duplicate and that the secretary forward a copy to the A.Ph.A. Committee on Status of Pharmacists in Government Service. The other alternative would be to inform the chairman of the A.S.H.P. committee to send at least one copy direct to the parallel A.Ph.A. committee.

3. That the committee for next year be requested to contact the directors of the pharmaceutical departments in the various branches of the Government services so that they can compile a complete listing of all the government hospitals in which pharmacists practice. As soon as the Committee on Pharmacists in Government Service is appointed then a notice should be sent all Government hospital pharmacists. On this first notice opinions and constructive suggestions could be requested and appropriate action started.

4. That the suggested questionnaire which has been presented by the committee be discussed by the Executive Committee and/or the Policy Committee of the Division of Hospital Pharmacy, and if necessary, with the pharmaceutical directors of the various governmental agencies, such as Army, Navy, Veterans, U.S. Public Health Service, etc. to make sure it meets with their approval. The results of these conferences could then be passed on with appropriate recommendations for next year's committee which could send out and tabulate the results.

5. That definite action be taken by the Executive Committee, or director, or secretary, through the A.Ph.A. Committee on Status of Pharmacists in Government Service to find ways and means of correcting the deletion of a Commissioned Pharmacist from the Table of Organization of the Army hospitals.

Report of Committee on Constitution and By-Laws

GERALDINE STOCKERT, *Chairman*

Suggested changes in the Constitution and By-Laws of the American Society of Hospital Pharmacists were sent to members of the committee for criticism and comments. With the cooperation of Mr. Herbert Flack, the work was compiled and mimeographed and sent to members of the Executive Committee for further comments. Replies to these letters were considered and the mimeographed copies distributed at this meeting are the result of the work of the Special Committee on Constitution and By-Laws.*

*Editor's Note: The proposed Constitution and By-Laws was reviewed by the A.S.H.P. House of Delegates and submitted to the convention for approval. In accordance with the provision for amending the Constitution and By-Laws, it was then submitted to the membership for approval by mail vote. The revised Constitution and By-Laws is printed on page 205.

Report of the Special Committee on Education

CHARLES G. TOWNE, Chairman

The Special Committee on Education originally consisted of Sister Clara Frances, chairman, Drs. Louis Zopf and Edward Ireland, and Messrs. Robert Stockhaus, Jerome Yalon and Charles Towne. Due to the illness of Sister Clara Frances, Mr. Charles Towne was appointed chairman, and Dr. Charles Schwartz was added to the committee in November 1949.

The foremost project of the committee was converting the "Pharmacy Course Material" of last year's committee into a syllabus. This has been completed and the syllabus tested in teaching at the University of Southern California. It is intended as a guide for instructors and students, not as a complete textbook. By adequate emphasis by the instructor it can be used in undergraduate or graduate courses, and for either formal or informal internships. This material is presented to the A.S.H.P. Executive Committee for further disposition. Any credit for this presentation can only partially be given the 1950 Committee on Education, as much of the endeavors should be credited to previous committee members and those other members who have ably assisted in its editing and progress.

Due to shortness of the term, several other projects are pending completion:

1. Revising the recommended therapeutic library list
2. Syllabus for instruction of nurses by pharmacists
3. Visual aid material for hospital pharmacy teaching

The use of graduate and intern student assignments in hospital pharmacy problems in administration, education, and professional theses for college credits proved of high mutual advantage this year.

The excellent cooperation of President Flack and his staff with this committee has proven of great value, particularly in the survey of intern programs and the results as published in THE BULLETIN. Extension of the internship program, and coordination with the expanding programs of the colleges of pharmacy for greater use of elective studies specializing in hospital pharmacy, is approved and encouraged.

A problem recommended for further development is the adoption of a standardized set of forms suitable as evaluation scales for the selection and progress of intern students. Samples of such forms are submitted along with the report.

Report of Committee on Licensure of Drug Facilities

THOMAS SISK, *Chairman*

As suggested in the title of our committee, the primary objective was to obtain the status of licensure of hospital drug facilities in each of the forty-eight states. This report, which should be of considerable help to the Committee on Minimum Standards, is part of a long-range program designed to show hospital administrators the need for adequate pharmaceutical service.

In the detailed report, a copy of which you have received, you will find considerable variations in the requirements of the different state boards relative to adequate pharmacy service in hospitals. Twenty-one state boards, or 44 per cent, require hospitals to have a pharmacy license to dispense drugs. Despite the fact that many thousands of dollars worth of medicinal agents are dispensed in our hospitals annually, we find that some state boards assume no responsibility whatever regarding who shall dispense these drugs; whereas, others are rather indefinite about placing any responsibility for such procedures. On the other hand, some thirty-two state boards require by law that all hos-

pitals of 100 beds or over employ a full-time pharmacist and smaller hospitals secure the part-time services of a pharmacist. However, some states are rather negligent in enforcing existing legislation.

It is encouraging to note a trend toward better supervision of hospital drug dispensing. Several of the state boards are revising their laws to include hospitals within the scope of their supervision.

Regarding the preparation of intravenous fluids it was found that the state boards are almost unanimously in favor of the requirement that such manufacturing be supervised by a registered pharmacist.

Of particular interest is a resolution passed at the 1949 convention of the Ohio State Pharmaceutical Association. It reads:

> "Resolved, that the Ohio State Pharmaceutical Association in meeting assembled that all pharmacy services rendered by hospitals, regardless of size, shall be under the immediate supervision of a registered pharmacist, and
>
> "Be It Further Resolved, that pharmacists in their respective communities offer their services in cases where full-time employment of pharmacists is not practical or necessary."

Since, as reported in a recent publication of the United States Public Health Service, more than 60 per cent of all general hospitals are without the services of a full-time pharmacist, the drug rooms of these hospitals are in charge of a registered nurse or someone even less qualified. Is not the hospital patient entitled to the protection afforded by having the drugs, upon which his very life may depend, prepared and dispensed by a registered pharmacist?

The American Medical Association in its "Essentials of a Registered Hospital" prepared by the Council on Medical Education and Hospitals states as follows:

> "The handling of drugs should be properly supervised and should comply with all legal regulation. Accurate records should be maintained. A qualified person, preferably a graduate pharmacist, should be in charge; in any case all prescriptions should be filled by a graduate pharmacist."

In its latest survey the A.M.A. Council reports that in 6,280 hospitals throughout the country there were 2,786 full-time and 514 part-time pharmacists employed.

The Committee on Pharmacy of the American Hospital Association in its 1937 report states that a full-time graduate registered pharmacist should be in charge of the hospital pharmacy or pharmaceutical service should be available from an approved nearby pharmacy. Further, that hospitals of 100 beds or more warrant the employment of a registered pharmacist.

It is evident from the reports submitted that the majority of state boards are desirous of proper pharmacy service in hospitals. But, because of weaknesses in their regulatory powers, principally the absence of a licensure procedure for all pharmacies and the shortage of state board inspectors, many boards have become short-sighted in fulfilling the duties of their office. In considering only the retail pharmacy these boards have done a great disservice to the American people by permitting many hospitals, clinics, etc., to practice pharmacy without adequate supervision.

The American Hospital Association and the American Medical Association have shown considerable interest in adequate pharmacy services for their member hospitals. However, it is useless to expect these organizations to force the issue if American pharmacy itself is not behind the issue. It is hoped that the Minimum Standard for Pharmacies in Hospitals, approved by the Division of Hospital Pharmacy of the American Pharmaceutical Association will be approved and incorporated into the minimum requirements for adequate pharmacy service in all member hospitals.

In order that there may be better enforcement of existing regulations it is suggested that all state boards set up a system of licensure for all places which perform any type of pharmacy service—be it wholesale, retail, hospital, or manufacturing. Pharmacy must regulate itself from within by a truly democratic method or it is evident that the government will do it for us. This procedure is quite evident in the recent efforts of the Food and Drug Administration to control the refilling of any and all prescriptions.

Report of Committee on Narcotic Regulations

MILTON SKOLAUT, *Chairman*

On May 23, 1949 I was asked to serve as chairman of the Committee on Narcotic Regulations. I was happy to accept this task along with the suggestions our president gave this committee on how to reach our goal in regard to a standardization of narcotic procedures in hospitals, including standardization of forms.

With this goal in mind our committee members obtained many forms used for recording the use of narcotics. These included narcotic use records, eight hour check records, perpetual inventory records, etc. The chairman studied the various forms and circulated to the committee a composite of some of the best. This again brought out many faults which allowed the chairman to make up the last record sheets which were distributed to the committee and which are being presented today for your consideration.

On November 10 the chairman received a letter from Dr. Robert R. Cadmus, chairman, Committee on Pharmacy of the American Hospital Association with a proposal from that group interested in this same work. This correspondence brought together the working and thinking of the two groups so that we might arrive at a definite conclusion which would be accepted not only by the American Society of Hospital Pharmacists but also by the American Hospital Association. Following is the proposal as set forth in the letter from Dr. Cadmus:

I. *Proposal*

It is proposed that the Commissioner of Narcotics:

A. Approve, at least in principle, the use of forms similar to those attached for the internal control of narcotics in all hospitals, taxable and tax exempt.

B. Clarify the Tax Classes required by various hospitals for ordering and dispensing narcotics, and for manufacturing exempt preparations by emphasizing the following:

(1) Federal, state, county, and municipal hospitals—tax exempt.

(2) Non-profit and Proprietary require:

(a) with pharmacist — classes III, IV, and V.

(b) without pharmacist—classes III, IV.

Permit under a hospital's Class IV license the privilege for any physician, dentist, or veterinary surgeon holding an official appointment on the active, courtesy, consulting, or house staff of that hospital to:

(1) write and sign an order for a narcotic drug on any bed patient or laboratory animal, to be dispensed from a unit supply properly requisitioned from the hospital pharmacy, and controlled by the previously mentioned inventory forms.

(2) write a prescription for a bed patient or laboratory animal for a narcotic drug not usually stocked in the unit supply to be filled by the hospital pharmacy.

(3) write a prescription for an ambulatory patient under the control of the hospital for a narcotic drug to be dispensed by the hospital pharmacy.

D. Place no restrictions as to time limit on narcotic orders for hospital patients.

II. *Justification for the Proposal*

Each of the points in the above proposal are herewith explained and justified:

A. Although it is understandable that the regulations relating to the control of narcotic drugs should not restrict desirable flexibility in local administration, it nevertheless seems desirable for the Commissioner of Narcotics to review and approve in principle the forms which are herewith attached so that they may serve as a guide and a standard which may be followed by all hospitals in their internal control of narcotics.

B. There has been considerable variation in interpreting the tax status of various hospitals, particularly as

it concerns non-governmental hospitals possessing a Class IV license. Consequently, it would seem desirable that a statement such as that presented under Proposal B be made to clarify the regulations for all concerned.

C. This proposal would correct the most troublesome feature which hospitals have in complying with narcotic regulations in that there have been various interpretations as to existing requirements. There exists in all hospitals conditions which force graduate physicians not registered with the Narcotic Bureau to order for patients in that hospital, drugs coming under the Federal Narcotic Act. According to the standards of training established by the American Medical Association, and by the various State licensing boards, many physicians in hospital training are not eligible for either State licensing or narcotic licensing until after further training. Nevertheless these individuals carry heavy patient responsibility under supervision which is often somewhat indirect. It is not practical or feasible to have each narcotic order of these graduate physicians re-written and confirmed by practicing physicians with narcotic numbers. To accomplish this at a time after the patient is discharged, as is commonly done, is a clerical gesture to routine which neither shows intelligent administration nor conscientious following of the intent of the law. To permit physicians with hospital appointments to write narcotic orders for patients under that hospital's control under the authority of the hospital's Class IV license would seem the most practical solution to the method now used by most hospitals and tolerated by many narcotic agents.

D. Narcotic inspectors place a varying time limit on the validity of a narcotic order. Narcotics are prescribed in general for two types of patients; first, for the acutely ill whose course runs a matter of days at the end of which narcotic as well as many other orders are cancelled; the second group is for chronic and terminal patients where the requirement for narcotics often runs over prolonged periods. To constantly write and re-write orders in such cases seems to put an unjustifiable clerical burden upon the doctor without offering significant safeguards against the mishandling of narcotics.

This proposal was circulated among the committee members and the following conclusions were derived which have been forwarded to the chairman of the Committee on Pharmacy of the American Hospital Association.

1. *Proposal*

A. Use of forms approved.

B. (1) Federal, state, county, and municipal hospitals—tax exempt—approved.

(2) Non-profit and Proprietary require:

(a) with pharmacist — Classes III, IV, and V approved.

(b) without pharmacist— Classes III, IV. Suggest this to be changed to Class IV only.

C. (1) Write and sign an order for a narcotic drug on a bed patient or laboratory animal, to be dispensed from a unit already requisitioned from the hospital pharmacy-approved.

(2) Write a prescription for a bed patient or laboratory animal for a narcotic drug not usually stocked in the unit and to be filled by the hospital pharmacy-approved.

(3) Write a prescription for an ambulatory patient under the control of the hospital for a narcotic drug to be dispensed by the hospital pharmacy. Our group could not quite agree that the first year interns be allowed to prescribe narcotics for any ambulatory patient. However, this really would be an administrative problem for the director of the hospital. We believe that with proper supervision and training there should be no difficulties.

D. Place no restrictions as to time limits on a narcotic order. Approved for bed patients.
Qualify with the following for ambulatory patients: for certain cases that can be classed as terminal or chronic.

The following forms are presented for your consideration and adoption:

The chairman has selected this form as the one which will be useful to the largest number of hospitals. Each hospital can easily mimeograph or print its own forms and add specific regulations on the reverse side, as per example:

1. Narcotic orders sent to the Pharmacy before 9 A.M. will be delivered. Others must be called for by a nurse after 2:30 P.M.
2. All requests for narcotics will be made on a prescription blank and will bear the following: ward, date, name of narcotic, form, size, and full legal signature of the physician.
3. Emergency orders may be called for by a nurse during the hours the pharmacy is open.
4. Nurses in charge of the particular unit will be held responsible for the proper disposition and recording of all narcotics.
5. Narcotics lost or accidentally destroyed must be recorded and signed for by the nurse in charge giving full particulars.
6. Broken narcotic tablets, solutions, etc. or any unfit for use must not be destroyed, but returned to the Pharmacy.
7. This form when completed must be returned to the Pharmacy on the following day whether additional narcotics are required or not.
8. No narcotics will be dispensed during hours when the Pharmacy is closed.

If the Association should undertake the printing of these forms then more general narcotic regulations should appear only. This might eliminate items number three and eight of the above.

A record sheet containing fifty spaces allows dispensing of larger units of a drug such as papaverine hydrochloride tablets, meperidine hydrochloride solution, 30 cc. vials, or barbiturates. The

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NARCOTIC AND BARBITURATE ADMINISTRATION RECORD

_____ HOSPITAL

Number _____

RECEIPT OF DELIVERY DATE ISSUED_____

Received of the Pharmacy_____tablets or cc. of_____

WARD_____ SIGNED_____

DATE SHEET RETURNED_____

NARCOTIC AND BARBITURATE ADMINISTRATION RECORD

DATE SHEET RETURNED NUMBER_____

TO PHARMACY_____ WARD_____

The following is an accurate record of the use of_____tablets or cc. of_____

_____. Record each dose on a separate line.

Record loss on proper line with explanation under "Remarks."

DATE	TIME	PATIENT	PHYSICIAN	AMOUNT	NURSE
1.					
2.					
3.					
47.					
48.					
49.					
50.					

"Remarks"

Signed_____

Nurse in Charge

form is easily used for the recording of alcoholic stimulants.

It is apparent that the Pharmacy should keep a record of narcotics issued in addition to the delivery receipt from the form. This should be in the form of a perpetual inventory which would show the date, to whom dispensed, the amount and size of the narcotic and the balance remaining in the working stock of the pharmacy. A separate page for each narcotic would show exactly the amount left in the Pharmacy and also the usage over any period of time.

The nursing service still needs an eight hour narcotic count form which is being used in practically all hospitals. This should show the date, time of day, a space for the signature of the nurses checking and a space for remarks if the number is incorrect.

The next to be considered is a printed form of why a narcotic record sheet is not acceptable. This form is found useful by many hospitals but this committee is opposed to its adoption. An educational program should be carried to the nursing service of each hospital by the chief pharmacist to eliminate these troubles.

A number of the larger hospitals find it helpful to have printed an order sheet showing every narcotic available. The nurses merely write the amount of a narcotic they wish to order in the proper space, the name or designation of the nursing unit and the signature. The size of the hospital will govern whether this type of form will be useful and therefore the chairman does not recommend this form be adopted for general use.

The work on the proposal to alter the regulations has not progressed to a point where they can be approved. Therefore, I recommend the committee be reappointed for another year to continue this work.

The committee's work on the forms has been completed and I move they be adopted.

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NAME OF NARCOTIC

DATE	TO WHOM DISPENSED	AMOUNT	BALANCE

DATE	TIME	NURSE	REMARKS

Report of Committee on Parenteral Containers

GEORGE L. PHILLIPS, *Chairman*

A preliminary report of the Committee on Parenteral Containers appears in THE BULLETIN 7:91 (March-April) 1950.

Resolutions Adopted at the A.S.H.P. Convention 1950

Whereas, the Society is greatly indebted to the Council of the American Pharmaceutical Association for its splendid support of the many programs involving the interest of hospital pharmacists, and

Whereas, it is the desire of the Society to convey to the A.Ph.A. an expression of this appreciation, be it

Resolved, that the American Society of Hospital Pharmacists express its appreciation to the Council of the American Pharmaceutical Association for its continued support of hospital pharmacy, and

Be it further resolved, that the Secretary of the Society be instructed to transmit a copy of this Resolution to the Council.

• • •

Whereas, the Society feels that it is of the utmost importance that unity exists among all branches of the profession, and

Whereas, it is noted that members of certain local chapters are not members of the American Pharmaceutical Association and the American Society of Hospital Pharmacists, be it

Resolved, that the American Society of Hospital Pharmacists urge all members of affiliated chapters to become members of the Ameriecan Pharmaceutical Association and the American Society of Hospital Pharmacists, and

Be it further resolved, that the Secretary of the Society be instructed to so notify all affiliated chapters of this action by an appropriate letter.

• • •

Whereas, the Society is greatly indebted to the various individuals and committees who have contributed so much toward the establishment, approval and implementation of the Minimum Standard for Pharmacies in Hospitals, and

Whereas, the Society wishes to make known its expression of appreciation to these individuals and committees, be it

Resolved, that the American Society of Hospital Pharmacists commend the various committees and individuals who have contributed toward the establishment, approval, and implementation of the Minimum Standard for Pharmacies in Hospitals, and

Be it further resolved, that the Secretary of the Society be instructed to transmit a copy of this resolution to each of the individuals and committees included in the above resolution, notifying them of this action and the Society's appreciation for their splendid services.

• • •

Whereas, it is felt by many members of the Society and teachers of courses in hospital pharmacy in the accredited schools of pharmacy, that no means now exists for the proper exchange of ideas relative to the subject content of such courses, and

Whereas, it is the concensus of teachers of such subjects and hospital pharmacists, that a discussion of such matters at such a conference would materially aid teachers of hospital pharmacy subjects in preparing and presenting such subjects, be it

Resolved by the members of the American Society of Hospital Pharmacists, that the Society approve the holding of an annual joint conference between teachers of formal hospital pharmacy courses in accredited schools of pharmacy and the officers and officers-elect of the A.S.H.P., the members of the Committee on Minimum Standards and the director of the Division of Hospital Pharmacy, said meeting to be held during the week of the annual A.Ph.A. convention, the time and place to be announced in the printed program of the annual meeting of the A.Ph.A. and affiliated organizations. The purpose of said meeting being to discuss the content of hospital pharmacy courses as they are being taught and to offer constructive suggestions, if possible, regarding improvements that could be made in the presentation of the subject material in order for the profession to better provide adequate pharmaceutical instruction for this specialty of the profession which is ever growing in community and national importance, and,

Be it further resolved that this resolution, if adopted, be transmitted by the secretary of the Society to the secretary of the Conference of Teachers of Pharmacy, requesting consideration of this resolution at their next annual meeting.

Division of Hospital Pharmacy

of the

American Pharmaceutical Association

and the

American Society of Hospital Pharmacists

Report of the Policy Committee of the Division of Hospital Pharmacy

By

ROBERT P. FISCHELIS, *Chairman*

I think you have been kept well aware of the progress in the relations between the American Pharmaceutical Association and the American Society of Hospital Pharmacists, through your own BULLETIN and, also, through our *Journal*. I think, at this time, it is necessary only for me to review a few matters which will bring you up to date in your thinking about the future of these relations.

No doubt, President Flack, whose address I regret to have missed, has surveyed for you the progress which has been made during the past year, but I cannot help but let my mind wander back to 1946, when we met in Pittsburgh. Some time during the convention there, a small group of members of your organization met with me to try to work out some procedure whereby the hospital pharmacists of America could secure more of the advantages of the facilities of the American Pharmaceutical Association.

Many things had to be taken into consideration in planning of that kind, and I think, that in the course of the past four years, we have been able to get down to something very practical, a procedure which, I believe, may well become a model for the type of cooperation we are going to work out as the years go by, with other segments of American pharmacy.

All of you, of course, are members of the American Pharmaceutical Association. The fact that you are also members of the American Society of Hospital Pharmacists indicates that you are specialists in a field of pharmacy in which the American Pharmaceutical Association should also be deeply interested, and is deeply interested.

The question we had to settle was how we could within the framework of both organizations, establish a unit which would implement the activities of both organizations where they merge, yet retain the identity and the autonomy of the American Society of Hospital Pharmacists, which had made such splendid progress.

The establishment of what is known as the Division of Hospital Pharmacy is the answer to the question which was raised back in 1946. The answer could not be given at that time, but it developed by a process of evolution. In that evolution, we have had the splendid cooperation of the people who have been most active in this Society, and it is really amazing, sometimes, to look back on how little one starts with in these things, and how fine an organization can be formed when people are willing to put their shoulders to the wheel and go to work.

I have yet to meet any group of hospital pharmacists who are not willing to work. I think that is the answer to the success of your Society to date.

It became necessary, of course, to convince the Council of the American Pharmaceutical Association that, in giving special consideration to hospital pharmacy, it was not neglecting other segments of pharmacy, because the American Pharmaceutical Association must keep in mind that it serves pharmacy as a whole. The acceptance of the principle that anything we do to develop hospital pharmacy develops pharmacy in general, is, of course, the principle under which the American Pharmaceutical Association adopted its present policy of making funds available, making certain space available and making facilities available to hospital pharmacy almost exclusively. The American Pharmaceutical Association, in turn, profits by making the results of hospital pharmacy activities available to pharmacy as a whole.

The policies of the Division, as you know, are formulated by a Policy Committee, which consists of four of your members, two members of the American Pharmaceutical Association who are not necessarily hospital pharmacists, one representative from the American Hospital Association and one from the Catholic Hospital Association.

This year, the Policiy Committee met in advance of the meeting of the Council of the American Pharmaceutical Association and reviewed the development of hospital pharmacy activities as carried on by the Division.

Until last January the Division functioned with the secretary of the American Pharmaceutical Association acting as its director and Miss Niemeyer functioning as the assistant director and doing most of the work. Your BULLETIN was kept at its high standard of excellence through the editorship of Don Francke, and the associate editorship of Miss Niemeyer. The problems of how to finance additional activities was solved by agreeing that your BULLETIN might take certain types of advertising.

The fact that certain industries have been not only willing but anxious to support the BULLETIN through advertising, and to benefit from the advertising, is an indication of the high standard your publication has reached, and of the importance of your group and of your publication in the eyes of the drug industry.

All of the receipts from advertising are the funds of the American Society of Hospital Pharmacists. The Policy Committee recommended that both organizations (that is, the ASHP and the APhA) go along with a policy of running advertising in the BULLETIN, and that the funds thus raised be used for the development of divisional activities or society activities, as you direct.

The Policy Committee recommended, and the Council of the American Pharmaceutical Association and the Executive Committee of your Society approved, the designation of Don Francke not only as editor of the BULLETIN but, also, as director of the Division. He will give to these activities such time as he can spare and, with the help of Miss Niemeyer at the headquarters building, he will direct the activities of the Division.

I think all of you know that we at the American Pharmaceutical Association headquarters, and the members of the Policy Committee, feel that one of the most important projects for the Division to complete is a minimum standard for hospital pharmacies. We felt that, once such a minimum standard is established, there would be a definite policy, on the part of hospitals which belong to the three great national hospital associations, to adopt that minimum standard. Once the minimum standard is adopted, there would be a definite place for the hospital pharmacist as a member of the policy-making and service-giving staffs of the hospitals.

I am glad to be able to tell you this morning that the American Hospital Association has endorsed the Minimum Standard which has been proposed and worked out by you. As you know, the standard was approved by the Policy Committee after a good deal of revision; it was approved by your own Executive Committee after a good deal of revision, and finally it was approved by the Council of the Association.

There were just one or two minor changes suggested by the American Hospital Association which, in my judgment, strengthen the standard.

A letter from Dr. Charles T. Dolezal, the assistant director of the Council on Professional Practice of the American Hospital Association, says:

"At its meeting on Sunday, March 26, the Council on Professional Practice recommended to the Board of Trustees of the American Hospital Association approval of the Minimum Standard for Pharmacies in Hospitals, with the following revisions:

Feeling that the minimum standard should recognize the administrative unity of the hospitals, the Council deleted from the second line of the second paragraph, titled *Policies*, the words "and cooperation." In line 8 of the same paragraph, the Council inserted the words "subject to administrative approval" following the word "regulations."

As revised by the Council on Professional Practice, paragraph 2, titled *Policies*, reads as follows:

"The pharmacist in charge, with the approval of the director of the hospital, shall initiate and develop rules and regulations pertaining to the administrative policies of the department. The pharmacist in charge, with the approval and cooperation of the Pharmacy and Therapeutics Committee, shall initiate and develop rules and regulations, subject to administrative approval, pertaining to the professional policies of the department."

The statement of Minimum Standard for Pharmacies in Hospitals was otherwise accepted and considered to be in compliance with the policies of the American Hospital Association. The next meeting of the Board of Trustees will be in the early part of June. I should like to know at your convenience, if the two changes adopted by the Council on Professional Practice are acceptable to the Division of Hospital Pharmacy, prior to the recommendation of the Council being submitted to the Board of Trustees."

So we are definitely on our way to final approval of the standard by the American Hospital Association, and we can then go to the other groups, the College of Surgeons and the American Medical Association, for their endorsement. We will have set up, for the first time in the history of hospital pharmacy, a set of standards which recognize the hospital pharmacist as the principal factor in policy-making in his own department, and on the policy-making line with respect to pharmacy in the hospital organization as a whole.

This I count as one of the big achievements of the past few years. The credit should go to your hard-working Committee on Minimum Standards. It has been under various chairmanships over the past few years, winding up under the chairmanship of Dr. Purdum.

The fact that you have had the cooperation of the Society and the American Pharmaceutical Association and the national hospital associations in various stages of the development of this standard indicates the sincerity of purpose of all concerned.

This is not only an achievement, but it is a challenge; it is a challenge to the hospital pharmacists of the United States now to make this standard work; and the leadership of your Society and the leadership of your Division will certainly be tested in the promulgation and enforcement of the standard, once it has all-around approval.

The Policy Committee will probably want to endorse this proposed change in the wording of the standard after your own Executive Committee has reviewed the slight change which, I think all of you will agree, strengthens rather than weakens the proposal. The next step then will be to run a number of pilot studies to see how this standard, when actually applied to hospital pharmacies already in existence, meets your needs. It may be necessary to change some of the procedures, but I think the basic standard, as it has been evolved, is sound.

Don Francke took over the direction of the Division in the latter part of January, and he will have more to tell you about the current activities of the Division. As chairman of the Policy Committee, I am reporting largely for the consummation of the various steps which occurred in January. We certainly look forward to a year of progress. I have heard nothing but admiration and encouragment expressed for the BULLETIN of which, I am sure, all of you are very proud. It looks to me as though the help the Division has been able to give in this project has been very well worth while.

I can tell you that the secretary of the American Pharmaceutical Association and the Council is very happy about the progress which has been made, and I think there will be no difficulty of any kind in the future to continue, as far as the American Pharmaceutical Association is concerned, the happy arrangement which has worked so well up to now.

Report of the Division of Hospital Pharmacy

DON E. FRANCKE, *Director*

Under the agreement ratified by the American Pharmaceutical Association and the American Society of Hospital Pharmacists in 1947, the Division of Hospital Pharmacy was established and the following principal functions assigned to it:

1. To further the objectives of the American Society of Hospital Pharmacists as set forth in Article 1 of its constitution. These objectives include: improving and extending the usefulness of the hospital pharmacist to the institution he serves and to the related professions through the establishment and promotion of minimum standards of pharmaceutical service in hospitals; to assure for the future an adequate supply of well trained hospital pharmacists by providing standardized hospital pharmacy internships; to provide for interchange of information among pharmacists; and to aid the medical profession in extending the economic and rational use of medicaments.
2. To integrate the activities of the American Society of Hospital Pharmacists with the American Pharmaceutical Association and to increase membership in each organization.
3. To provide information on hospital pharmacy.
4. To promote and assure the future of THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.
5. To provide an administrative unit with career personnel and the necessary clerical assistants to further the interests of the American Society of Hospital Pharmacists and hospital pharmacy in general.

In addition, the secretarial functions of the American Society of Hospital Pharmacists are carried out at Division headquarters by Gloria Niemeyer who is the secretary of the Society as well as assistant director of the Division. Thus the Division office is responsible to the American Society of Hospital Pharmacists for:

1. Maintaining the roster of the membership.
2. Conducting membership campaigns.
3. Assisting in the preparation of programs for conventions and institutes.
4. Conducting the correspondence of the Society.
5. Collecting dues.
6. Distributing membership cards and certificates.
7. Handling advertising for THE BULLETIN of the Society.
8. Performing the other miscellaneous tasks assigned to this office.

From the foregoing it is obvious that the functions of the Division fall into three main categories:

1. Division Activities.
2. Society Activities.
3. BULLETIN Activities.

Since the Division is a coordinating body serving the American Society of Hospital Pharmacists and is also functional unit of the American Pharmaceutical Association, it is difficult to delineate or to approxi-

mate the activities carried out for each organization. In fact, it would probably be undesirable to attempt such a separation since all its activities are for the promotion and advancement of hospital pharmacy which is its prime function.

As the Division serves the Society, so too does the Society serve the Division. The activities of the Division are to a great degree affected by the activities of the Society including its officers, numerous committees and its affiliated chapters. For example, this past year the Membership Committee has been exceptionally active in sending to the Division many lists of prospective members to be checked against membership lists of American Pharmaceutical Association and American Society of Hospital Pharmacists. This checking is followed by sending an invitation to the prospective member to join the organizations and with the letter is sent a complimentary copy of THE BULLETIN and the *Journals*. The Minimum Standard Committee has been very active and its accomplishments have greatly assisted the Division and has increased its activities and responsibilities. The same is true of numerous other standing and special committees of the Society as well as of its officers, the work of each supporting and reenforcing the activities of the Division and adding to its overall accomplishments for the growth and development of hospital pharmacy. Without this splendid cooperation between the Society and the Division, many accomplishments for the benefit of hospital pharmacy would have been impossible.

During the past year hospital pharmacy has progressed. The Division of Hospital Pharmacy of the American Pharmaceutical Association and the American Society of Hospital Pharmacists has contributed much toward this progress. The Policy Committee of the Division with representatives of the A.Ph.A., the A.S.H.P., the American Hospital Association, and the Catholic Hospital Association has served as a guide, as well as in an advisory capacity, in directing the activities of the Division. The administrative plan at A.Ph.A. headquarters, under the guidance of the director of the Division, and the full-time services of an assistant director and a secretary has made it possible to carry out the activities so necessary to the development of hospital pharmacy. At the 1948 meeting of the Policy Committee, and again at the December 1949 meeting of the Committee, certain projects were outlined. Attention has been given to all suggestions, and, in most cases, work on every project has been initiated and in some cases we have been able to bring about implementation of some of the projects. It is apparent that by the mutual cooperation of the A.Ph.A. and the A.S.H.P. through the Division, a great deal has been done which would otherwise have been impossible. Furthermore, we have been able to make available to you the facilities of the A.Ph.A. in connection with membership activities, the information and library services, the laboratory facilities, and the various other services of the A.Ph.A.

Possibly of greatest significance to hospital pharmacy during the past year was approval of the Minimum Standard for Pharmacies in Hospitals by your Executive Committee, by the Policy Committee of the Division, and by the Council of the A.Ph.A.; appointment of a part-time director of the Division; transference of the A.S.H.P. secretary's office to the A.Ph.A. headquarters; and improvement of your publication. Also made possible by the Division was a meeting of the Society's Executive Committee. During the past years, it has rarely been possible for your entire Executive Committee to meet due to geographical location and the expense of bringing such a group together.

As a matter of record, the following will provide you with information on the status of activities:

Policy Committee Activities

The Division of Hospital Pharmacy has relied considerably on the advice and opinions of the members of the Policy Committee. We have been fortunate to have on this Committee representatives of the American Hospital and the Catholic Hospital Associations, both of whom are hospital administrators who have shown considerable enthusiasm and interest in hospital pharmacy. These representatives are named annually by each of the associations. This past year Sister Mary Adelaide represented the Catholic Hospital Association, and Dr. Robert Cadmus represented the American Hospital Association. Other representatives who served during this past year include: Robert P. Fischelis and Glenn L. Jenkins of the American Pharmaceutical Association; and Herbert L. Flack, W. Arthur Purdum, Albert P. Lauve, and Don E. Francke, representing the American Society of Hospital Pharmacists.

A meeting of the Policy Committee was held on December 10, at A.Ph.A. headquarters. At this time various phases of the activities of the Division were reviewed and the Minimum Standard for Pharmacies in Hospitals was approved.

It was at this time that the recommendation was made that a part-time director of the Division of Hospital Pharmacy be appointed for a temporary period or until funds could be made available to appoint a full-time director. It was felt that this could be a very important intermediate step in carrying out the Division's functions. After much consideration by members of the Committee, it was agreed that such an arrangement could be made possible if advertising could be accepted in THE BULLETIN.

Approval of Minimum Standard

The Division of Hospital Pharmacy cooperated with the American Society of Hospital Pharmacists' Committee on Minimum Standards in promulgating the Minimum Standard for Pharmacies in Hospitals. As you have probably noted, the Standard has now been published in THE BULLETIN. It has been submitted to the American Hospital Association's Council on Professional Practice which has approved the Standard and the machinery for implementing it is under way. Within the next year we expect approval by all of the accrediting agencies, with possibly an opportunity for testing the standard.

Your Committee met on October 1, at Johns Hopkins Hospital, along with Dr. Fischelis who was then director of the Division of Hospital Pharmacy. Suggestions from local chapters and individuals were reviewed. The standard, with minor changes, was approved on December 11, 1949, by the A.S.H.P. Executive Committee and by the Policy Committee of the Division of Hospital Pharmacy, on December 10. The Council of the A.Ph.A. approved it at the January 6 meeting.

Hospital Survey and Construction Act of 1948 and 1949

Since the passage of the Hospital Survey and Construction Act of 1948 (Hill-Burton), construction of 1,019 hospitals has been approved for Government aid under the Act. The Division has actively cooperated with the Hospital Facilities Division of the Public Health Service in making available to architects, pharmacists, and hospital administrators, pertinent information in connection with the construction of new pharmacy departments as well as reorganization of existing departments.

At the request of the Hospital Facilities Division of the Public Health Service, suggested floor plans for pharmacy departments in the various size hospitals were submitted to the Division for review and final approval. In cases such as this, the Division has relied on members of the Policy Committee, as well as some of our individual members who have had considerable experience in planning pharmacies.

We are happy to report to you that the revised plans have now received final approval of the Division of Hospital Pharmacy and will be published in the May-June issue of THE BULLETIN. It is believed these revised plans will give considerable help to those concerned with planning pharmacy departments, and it is hoped that we can give a further service by making available, equipment lists, sources of equipment, and additional information in connection with planning the pharmacy department.

With the recent passage of the Hospital Survey and Construction Act Amendments of 1949 (Public Law 380), the appropriation of $1,200,000 has been recommended for research. Since it is possible to receive grants under this act to carry out research projects leading to improved hospital services, the Policy Committee of the Division asked that further inquiries be made regarding this. Some suggestions have been made and it is anticipated that a specific plan will be outlined and application for a grant made in the near future. Some of the suggestions received by the Division include the possibility of receiving a grant for testing the Minimum Standard, for a survey of hospital pharmacy and for working out a standard of practice for hospital pharmacy.

Survey of Hospital Pharmacy in Cooperation with the Public Health Service

Again at the request of the Hospital Facilities Division of the Public Health Service, the Division of Hospital Pharmacy was asked to cooperate in carrying out a survey of hospital pharmacy. A preliminary questionnaire was submitted to the Division through the Hospital Facilities Division for review and suggestions. The questionnaire was submitted to members of our Policy Committee and their suggestions were submitted to the Public Health Service. Since the Committee believes it would be advisable to have approval of the American Hospital Association's Council on Professional Practice, the questionnaire was submitted to Dr. Robert Cadmus, the Association's representative on our Policy Committee and chairman of its Pharmacy Committee. At his suggestion, it was deemed advisable to hold a meeting with representatives of our Policy Committee, a representative from the Public Health Service, and a representative from the American Hospital Association. Such a meeting was arranged for March 25 at which time consideration was given to making some revisions in the questionnaire and working out a final form for the survey. We now expect to submit the questionnaire with our approval to the Public Health Service and it is probable that the survey will get under way.

Consulting Service on Hospital Pharmacy

The Division of Hospital Pharmacy has established a Consulting Service on Hospital Pharmacy. This service, available to hospital administrators, architects, pharmacists, and others will provide guidance and basic information on problems concerning the establishment of new or the expansion and reorganization of existing Pharmacy Departments. The service will include also answers to specific questions of an administrative or technical nature concerning problems and practices in hospital pharmacy. Such a service was first suggested at the 1948 meeting of the Policy Committee. In cooperation with the Information Service at A.Ph.A. headquarters, the Division has attempted to offer a consulting service on a limited basis, with the help of hospital pharmacists. Requests to the Division for information have been steadily increasing from hospital administrators as well as hospital pharmacists. Examples of types of questions which are asked include requests for hospital formularies and information on organizing a Pharmacy and Therapeutics Committee; suggested floor plans for hospital pharmacies; methods of dispensing narcotics; and specific questions in regard to manufacturing, formulas, new drugs, etc.

The process of collecting, analyzing, interpreting and organizing basic information in current use and keeping the material up to date will be handled through the Division office. It will be necessary to refer some questions to a representative group of hospital pharmacists. The selection of such consultants will depend upon the individual question and upon the background and experience of hospital pharmacists considered for selection. In the event that consultants are requested for "on the scene" service, the Division will cooperate in making this possible.

Exhibits at National Hospital Meetings

In accordance with suggestions from the Policy Committee, an exhibit was prepared in 1949 for the conventions of the Catholic Hospital Association and the American Hospital Association. In each case, A.S.H.P. members in the city or nearby area where the convention was held, took charge of the exhibit. This created considerable interest among hospital administrators and other hospital personnel. With some revisions, we plan to again use it at conventions during 1950. Space for the Division exhibit has been reserved both at the Catholic Hospital Association convention, which meets in Milwaukee in June, and at the American Hospital Association convention which is being held in Atlantic City in September.

In cooperation with the Program Committee of the American Society of Hospital Pharmacists, the exhibit was also made available for local and regional hospital meetings, and the Division agreed to pay expenses for shipping the exhibit to any local or sectional meeting at the request of the local chapter.

Institutes on Hospital Pharmacy

The American Pharmaceutical Association, through the Division of Hospital Pharmacy, cooperated in carrying out three institutes on Hospital Pharmacy during 1949. Two were sponsored by the American Hospital Association in cooperation with the A.Ph.A. and the A.S.H.P.—one in Berkeley, California, and one in Chicago. We also cooperated with the Catholic Hospital Association in sponsoring an institute which was held prior to its annual convention during June in St. Louis.

Again this year plans are going forward to cooperate in sponsoring an Institute on Hospital Pharmacy. Arrangements have been made to hold the 1950 institute in Ann Arbor, Michigan, during the week of June 19, and the Catholic Hospital's institute is to be held in Milwaukee in June, also.

In connection with future institutes, the Policy Committee, meeting on December 10, voted to include the following representatives on the Planning Committee for future institutes; three A.S.H.P. members including the chairman of the committee and a representative of the A.Ph.A. and a representative of the American Hospital Association.

Placement Service for Hospital Pharmacists

The Division office has maintained a Placement Service for hospital pharmacists and has offered to publish requests for "Positions Wanted" and "Positions Available" in THE BULLETIN. Frequent requests come from hospital administrators wishing to employ a pharmacist, and we attempt to refer them to qualified persons.

Activities of the American Society of Hospital Pharmacists

With the transference of the A.S.H.P. secretarial office to A.Ph.A. headquarters, under the administrative set-up of the Division, a satisfactory plan has been worked out for handling many A.S.H.P. activities in a central location. Heretofore, this has not been possible since the Society has often depended on voluntary help and now that the Society has grown in rank and hospital pharmacy is becoming of greater importance, such an arrangement is necessary. The present set-up has promoted a mutual cooperation between the A.Ph.A. and the A.S.H.P. to the advantage of both organizations.

The Division has offered to promote any type of membership activities in the A.S.H.P. and to work with your Committee on Membership and Organization. In accordance with a resolution passed at your 1949 convention, the Division has cooperated with local and regional chapters of the A.S.H.P. in promoting increased membership in both organizations.

The roster of A.S.H.P. members, as well as Society records, has been handled through the Division office and the A.Ph.A.'s membership department has assisted in this. The Division office, through the A.S.H.P. secretary, has had contact with A.Ph.A. committees and has given whatever help was requested.

Bulletin Activities

The Division has continued to cooperate in making possible publication of THE BULLETIN. Prior to January, 1950 at the time when THE BULLETIN was first printed, typing, proofreading and some of the editorial work was done in the Division office. However, at the present time, it is necessary to do a greater part of THE BULLETIN work in the editor's office. The Division has assisted in taking charge of the advertising for THE BULLETIN and in the preparation of some copy and editorial work.

In the future, I believe the Society should seriously consider publishing THE BULLETIN on a monthly basis. If this is done, an editor who can devote his full time to the publication will be required, in addition to the services of a full-time secretary plus the assistance of the present editorial staff.

Future Activities

I could spend considerable time in outlining to you some of the ways in which established projects should be expanded and could list for you new projects which should be initiated. But at this time I shall say only that one of the prime requirements in the near future is the appointment of a full-time director of the Division of Hospital Pharmacy. Although I know that this is not possible at the present time, it is my sincere belief that this will be done within the relatively near future. For the present we must bend our efforts toward making the present plan work, knowing that its success assures for us the next step we must take—that of obtaining the services of a full-time director of the Division of Hospital Pharmacy.

American Society of Hospital Pharmacists Affiliated Chapters - 1950

Regional Chapters

SOUTHEASTERN SOCIETY OF HOSPITAL PHARMACISTS: *President,* C. Joseph Vance, South Highlands Infirmary, Birmingham, Ala.; *Vice-President,* Ernest W. Rollins, N. C. Baptist Hospital, Winston-Salem, N. C.; *Secretary,* Miss Johnnie Crotwell, Druid City Hospital, Tuscaloosa, Ala.

WESTERN PENNSYLVANIA SOCIETY OF HOSPITAL PHARMACISTS: *President,* Robert Statler, Veterans Hospital, Aspinwall, Pa.; *Vice-President,* Sister M. Francine, St. Francis Hospital, 45th Street, Pittsburgh 1, Pa.; *Secretary,* Josephine Certo, Columbia Hospital, Pittsburgh, Pa.; *Treasurer,* Dorothy Monyak, Children's Hospital, Pittsburgh, Pa.

ASSOCIATION OF HOSPITAL PHARMACISTS OF THE MIDWEST: *President,* Sister M. Carmelia, St. Joseph's Hospital, Omaha, Neb.; *Vice-President,* Lucille Bendon, Jennie Edmundson Hospital, Council Bluffs, Ia.; *Secretary,* Wilma Maus, Mercy Hospital, Council Bluffs, Ia.; *Treasurer,* Phyllis Platz, University of Nebraska College of Pharmacy, Lincoln, Neb.

HOSPITAL PHARMACISTS OF THE PUGET SOUND AREA (WASHINGTON): *President,* Bart Proper, U. S. Marine Hospital, Seattle, Wash.; *Vice-President,* Elida Larson, Harborview Hospital, Seattle, Wash.; *Secretary,* Elmer M. Plein, University of Washington, Seattle, Wash.

State and Local Chapters

Arizona

ARIZONA SOCIETY OF HOSPITAL PHARMACISTS: *President,* Eli Schlossberg, 2500 E. Van Buren St., Phoenix, Ariz.; *Vice-President,* David Axelrod, St. Monica's Hospital, Phoenix, Ariz.; *Secretry,* Mrs. William Brewer, St. Mary's Hospital, Tucson, Ariz.; *Treasurer,* Sister Elizabeth Joseph, St. Mary's Hospital, Tucson, Ariz.

California

NORTHERN CALIFORNIA SOCIETY OF HOSPITAL PHARMACISTS: *President,* Francis R. Spinelli, 2006 Eddy, San Francisco, Calif.; *Vice-President,* Chase Holaday, Herrick Memorial Hospital, San Francisco, Calif.; *Secretary,* Jack S. Heard, 3121 Santiago, San Francisco 17, Calif.; *Treasurer,* Lt. R. Lee Thompson, MSC, USN Hospital, Oakland, Calif.

SOUTHERN CALIFORNIA CHAPTER OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS: *President,* Florence L. Martin, 86 W. Santa Barbara, Los Angeles 33, Calif.; *Vice-President,* Chester Harding; *Secretary,* Richard Slanker, 1315 E. Norwood Pl., Alhambra, Calif.; *Treasurer,* Mrs. Norma Irish, 914 S. Abbott Ave., San Gabriel, Calif.

Connecticut

CONNECTICUT SOCIETY OF HOSPITAL PHARMACISTS: *President,* Thomas Heffernan, Waterbury Hospital, Waterbury, Conn.; *Vice-President,* Oswald Peck, Fairfield State Hospital, Newton, Conn.; *Secretary,* Shirley Bennett, Grace-New Haven Community Hospital, New Haven, Conn.; *Treasurer,* Sister Lucia, Hospital of St. Raphael, New Haven, Conn.

Florida

FLORIDA HOSPITAL PHARMACY ASSOCIATION: *President,* George Lill, Broward County Hospital, Ft. Lauderdale, Fla.; *Vice-President,* L. A. Whidden, Florida Sanitarium & Hospital, Orlando, Fla.; *Secretary,* Henrietta O'Quinn, Jackson Memorial Hospital, Miami, Fla.; *Treasurer,* Mrs. Anna D. Thiel, Jackson Memorial Hospital, Miami, Fla.

Illinois

THE ILLINOIS CHAPTER OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS: *Chairman,* Louis Gdalman, Michael Reese Hospital, Chicago, Ill.; *Vice-Chairman,* Mrs. M. L. Kettering, Billings Hospital, University of Chicago, Chicago, Ill.; *Recording Secretary,* Sophia Poska, Loretta Hospital, Chicago, Ill.; *Corresponding Secretary,* Mrs. Sigrid Van Schaak, Evanston Hospital, Evanston, Ill.; *Treasurer,* John J. Spranza, West Suburban Hospital, Oak Park, Ill.

MIDWEST ASSOCIATION OF SISTER PHARMACISTS (CHICAGO): *Chairman,* Sister Mary Tarcisia, O.S.F., St. Joseph's Home for the Aged, Chicago 47, Ill.; *Vice-Chairman,* Sister Mary Pia, O.S.F., St. Joseph's Hospital, Joliet, Ill.; *Recording Secretary,* Sister Alphonse Marie, St. Francis Hospital, Blue Island, Ill.; *Secretary-Treasurer,* Sister Mary Evarista, O.S.F., St. Anthony DePadua Hospital, Chicago, Ill.

Indiana

HOSPITAL PHARMACY SECTION OF THE INDIANA PHARMACEUTICAL ASSOCIATION: (not affiliated) *Chairman,* Allen V. R. Beck, Indiana University Medical Center, Indianapolis, Ind.; *Vice-Chairman,* Edward J. Wolfgang, Protestant Deaconess Hospital, Evansville, Ind.; *Secretary,* Julius Meininger, Veterans' Hospital, Indianapolis, Ind.; *Treasurer,* Kenneth Bogart, Methodist Hospital, Indianapolis, Ind.

Louisiana

LOUISIANA SOCIETY OF HOSPITAL PHARMACISTS: *President,* Valerie Armbruster, Charity Hospital, New Orleans, La.; *Vice-President,* Troy Carter, Veterans Administration Hospital, New Orleans, La.; *Secretary,* Shirley Bickmann, 4663 Lafaye, New Orleans, La.; *Treasurer,* Sylvia Chin-Bing, 3615 Beauvais, New Orleans, La.

Maryland

MARYLAND ASSOCIATION OF HOSPITAL PHARMACISTS: *President,* Kenneth Spangler, Johns Hopkins University Hospital, Baltimore, Md.; *Vice-President,* Sister Mary Rita, Mercy Hospital, Baltimore, Md.; *Recording Secretary,* Mary Ann Coleman, 804 St. Paul St., Baltimore, Md.; *Corresponding Secretary,* Charles S. Friedman, John Hopkins University Hospital, Baltimore, Md.

Massachusetts

MASSACHUSETTS SOCIETY OF HOSPITAL PHARMACISTS: *President,* Alfred Rosenberg, Beth Israel Hospital, Boston, Mass.; *Vice-President,* Edwin W. Spear, Newton-Wellesley Hospital, Newton Lower Falls, Newton, Mass.; *Treasurer,* Sister M. Edward, St. Vincent Hospital, Worcester, Mass.; *Secretary,* Ida Guber, The Faulkner Hospital, Jamaica Plain, Boston, Mass.

Michigan

MICHIGAN CHAPTER OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS: *President,* Adam Stark, St. Joseph's Hospital, Pontiac, Mich.; *Vice-President,* Paul Cole, Receiving Hospital, Detroit, Mich.; *Secretary,* Amelia E. Sroka, University Hospital, Ann Arbor, Mich.; *Treasurer,* George L. Phillips, University Hospital, Ann Arbor, Mich.

Missouri

HOSPITAL PHARMACISTS ASSOCIATION OF GREATER ST. LOUIS: *President,* Lyndahl A. Bloome, 5536 Ashland, St. Louis, Mo.; *Vice-President,* Anne H. Gestrich, 7819 St. Charles Rd., St. Louis, Mo.; *Secretary,* Richard F. Bolte, 116 Ann, Valley Park, Mo.; *Treasurer,* Frieda J. Ziegler (Sister), 6150 Oakland, St. Louis 10, Mo.

New Jersey

NEW JERSEY SOCIETY OF HOSPITAL PHARMACISTS: *President,* Ludwig Pesa, St. Mary's Hospital, Passaic, N.J.; *Vice-President,* Gabriel C. Roberto, Hope Dell Hospital, Preakness, N.J.; *Secretary,* Mildred Avantario, Englewood, N.J.; *Treasurer,* Bertram F. Jones, Essex County Hospital, Cedar Grove, N.J.

New York

ALBANY AREA SOCIETY OF HOSPITAL PHARMACISTS*: *President,* Walter M. Hartmann, Ellis Hospital, Schenectady, N.Y.; *Vice-President,* Lucy Manvel, Leonard Hospital, Troy, N.Y.; *Secretary,* Sister Mary Eugenia, St. Peter's Hospital, Albany, N.Y.; *Treasurer,* Gertrude Jackowski, Amsterdam City Hospital, Amsterdam, N.Y.

* Affiliation pending. Also known as Northeastern Society of Hospital Pharmacists (Albany, N.Y.).

BUFFALO CHAPTER OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS: *Co-Presidents,* Stephen N. Rubach, Veterans Administration Hospital, Buffalo, N.Y.; and Ethel Woodward, Children's Hospital, Buffalo, N.Y.; *Vice-President,* Browning A. Neal, U. S. Marine Hospital, Buffalo, N.Y.; *Secretary,* Lynn L. Wile, Buffalo State Hospital, Buffalo, N.Y.; *Treasurer,* Murial A. Fraser, Niagara Falls Memorial Hospital, Niagara, N.Y.

GREATER NEW YORK CHAPTER OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS: *President,* Sister Alice Loretta, St. Joseph Hospital, Far Rockaway, N.Y.; *Vice-President,* Sister Marie Patrick, St. Vincent Hospital, New York City, N.Y.; *Recording Secretary,* Sister M. Angeline, St. Mary's Hospital, Brooklyn 13, N.Y.; *Corresponding Secretary,* Sister Cecilia Mary, N.Y. Foundling Hospital, New York City, N.Y.; *Treasurer,* Sister Nicodema, St. Anthony Hospital, Woodhaven 21, N.Y.

Ohio

AKRON AREA SOCIETY OF HOSPITAL PHARMACISTS: *President,* William Slabodnick, Massillon City Hospital, Massillon, Ohio; *Vice-President,* Leon Bailey, Youngstown Hospital, Youngstown, Ohio; *Secretary,* Irene Chosy, Aultman Hospital, Canton, Ohio; *Treasurer,* Mrs. Willa Rinehart, Peoples Hospital, Akron, Ohio.

SOCIETY OF HOSPITAL PHARMACISTS OF GREATER CINCINNATI: *Chairman,* Irwin Weinberg, Cincinnati General Hospital, Cincinnati, Ohio; *Vice-Chairman,* Eugene Trainor, Cincinnati General Hospital, Cincinnati, Ohio; *Secretary,* Mrs. Christine Reinhardt, Bethesda Hospital, Oak and Reading Rd., Cincinnati, Ohio; *Treasurer,* Marion Wesler, Bethesda Hospital, Cincinnati, Ohio.

CLEVELAND SOCIETY OF HOSPITAL PHARMACISTS: *Chairman,* Mrs. Evlyn Gray Scott, St. Luke's Hospital, Cleveland, Ohio; *Vice-Chairman,* Charles Nevel, Lutheran Hospital, Cleveland, Ohio; *Recording Secretary,* Mary Dvorak, Community Hospital, Berea, Ohio; *Corresponding Secretary,* Edward Paley, U.S. Marine Hospital, Cleveland, Ohio.

OHIO SOCIETY OF HOSPITAL PHARMACISTS: *President,* William Slabodnick, Massillon City Hospital, Massillon, Ohio; *President-Elect* and *Program Chairman,* Basil Valenti, Fairview Park Hospital, Cleveland, Ohio; *Corresponding Secretary,* Charlotte Cox, University Hospitals of Cleveland, Cleveland, Ohio; *Recording Secretary,* W. H. McElroy, Peoples Hospital, Akron, Ohio; *Treasurer,* Mary Morgan Children's Hospital, Akron, Ohio.

TOLEDO SOCIETY OF HOSPITAL PHARMACISTS: *Chairman,* Edwin Bohrer, Toledo Hospital, Toledo, Ohio; *Vice-Chairman,* Sister Mary John, Mercy Hospital, Toledo, Ohio; *Secretary,* Dorothy Brehany, Riverside Hospital, Toledo, Ohio; *Treasurer,* Dorothy Emaheiser, Riverside Hospital, Toledo, Ohio.

Pennsylvania

PHILADELPHIA HOSPITAL PHARMACISTS ASSOCIATION*: *President,* Thomas P. Hynes, Bryn Mawr Hospital, Bryn Mawr, Pa.; *Vice-President,* George Stile; *Secretary,* Mrs. Reba Strimel, Women's Homeopathic Hospital of Philadelphia, Philadelphia 31, Pa.; *Treasurer,* Thelma Connolly, Frankford Hospital, Philadelphia, Pa.

* Not affiliated.

Texas

TEXAS SOCIETY OF HOSPITAL PHARMACISTS: *President,* Lewis S. Smith, Baylor University Hospital, Dallas, Texas; *Secretary,* Adela Schneider, Missouri Pacific Hospital, Houston, Texas.

Wisconsin

WISCONSIN SOCIETY OF HOSPITAL PHARMACISTS: *President,* Earl M. Jenson, Milwaukee County Emergency Hospital, Milwaukee, Wis.; *Vice-President,* Kathryn D. Gehrs, Milwaukee Children's Hospital, Milwaukee, Wis.; *Secretary-Treasurer,* Sister M. Blanche, O.S.F., Sacred Heart Sanitarium, Milwaukee, Wis.

Constitution and By-Laws

as Revised 1950

Constitution

Article I. Name, Objectives and Definition

Section 1. This SOCIETY shall be known as "The American Society of Hospital Pharmacists."

Section 2. The objectives of the SOCIETY shall be: (a) to provide the benefits and protection of a hospital pharmacist to the patient, to the institution which he serves, to the members of the allied health professions with whom he is associated, and to the profession of pharmacy, which they will receive through the skill and art of qualified hospital pharmacists; (b) to improve the qualifications and usefulness of hospital pharmacists through high standards of professional ethics, education, and attainments; (c) to assist in providing for a future adequate supply of such qualified hospital pharmacists; (d) to promote research in hospital pharmacy practices and in pharmaceutical problems in general; (e) to increase the dissemination of pharmaceutical knowledge by providing for interchange of information.

Section 3. A hospital pharmacist shall be defined as any legally qualified pharmacist currently practicing the art and science of pharmacy in a hospital or clinic, or actively engaged in the administration, planning, or supervision of pharmaceutical procedures in hospitals or clinics.

Article II. Membership

The membership of the Society shall consist of active, associate and honorary members as provided in Chapter V of the By-Laws.

Article III. Officers

The officers of this Society shall be a President, a Vice-President, a Secretary, and a Treasurer. They shall be elected annually for a term of one year as provided in the By-Laws. The President and Vice-President shall hold office for not more than two consecutive terms.

Article IV. Affiliated Chapters

A local or regional group of hospital pharmacists numbering ten or more active members of the SOCIETY and meeting the requirements for affiliation as outlined in Chapter IX, Article 1, of the By-Laws may become an affiliated chapter of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS upon approval of the Executive Committee of the SOCIETY.

Article V. Amendments

Every proposition to alter or amend this Constitution shall be submitted in writing by two active members at the first session of the annual meeting of the SOCIETY, and shall be approved by a plurality of the active membership in attendance at this session. It shall then be submitted to the entire active membership for vote by mail ballot, in the same manner as in the balloting for officers, Chapter I, Articles 2 and 3 of the By-Laws, and shall be sent out as a part of the ballot for officers. Should an amendment to the Constitution not be approved by a plurality vote at the annual meeting, it may then be referred to the active membership by mail ballot, on the request of ten active members.

By-Laws

Chapter I. Election of Officers

Article 1. NOMINATION OF PRESIDENT, VICE-PRESIDENT, and TREASURER. At the first session of each annual meeting of the SOCIETY, the President shall appoint a Committee of three members who shall nominate two candidates for each of the following offices: President, Vice-President, and Treasurer. The Committee shall present its nominations at the final session of the annual meeting, at which time additional nominations may be made from the floor.

Article 2. BALLOTS. The names of the candidates together with a brief review of their professional backgrounds shall be submitted by the Secretary by mail to every active member of the SOCIETY within two months after their nomination. The member shall indicate on the ballot his choice of candidates for the offices to be filled and return the same by mail within 30 days of the date printed on the ballot.

Article 3. COUNTING OF BALLOTS. The ballots of the dues-paid members only, postmarked within 30 days of the date printed on the ballot are to be submitted by the Secretary to the Board of Canvassers, who shall count the votes. The Board of Canvassers shall certify to the President and the Secretary the results of the election. The Secretary shall notify all candidates of the results of the election and the results of the election shall also be published in THE BULLETIN of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

Article 4. INSTALLATION OF OFFICERS. The officers thus elected by a plurality of votes, together with the Secretary elected as hereinafter provided, shall be installed at the final session of the annual meeting of the SOCIETY following their election.

Article 5. ELECTION OF SECRETARY. The Secretary of the SOCIETY shall be nominated by the Executive Committee and elected annually by the House of Delegates of the Society.

Chapter II. Duties of Officers

Article 1. PRESIDENT AND VICE-PRESIDENT. The President, or in his absence, the Vice-President, shall preside at all meetings. He shall have the usual administrative powers of his office, except as otherwise provided. He shall appoint all committees not otherwise provided for and shall be ex-officio member of all committees. He shall appoint the Board of Canvassers which shall consist of at least three active members of the SOCIETY. He shall, with approval of the Executive Committee, direct the activities and determine the policies of the SOCIETY. He shall cooperate with the activities of the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS, working closely with the Director of the Division. He shall attempt to meet with each of the several affiliated chapters of the Society. He shall prepare a President's address to be presented at the first session of the annual meeting of the SOCIETY following his installation. He shall preside over the House of Delegates.

Article 2. SECRETARY. The Secretary shall keep minutes of the sessions of the SOCIETY and maintain a roster of its members. He shall notify individuals of their appointment to committees, notify members of the time and place of all meetings, and conduct the correspondence of the SOCIETY. He shall collect the dues of the members. The Secretary shall prepare and mail to all eligible voting members appropriate ballot forms for the annual voting of the SOCIETY. He shall be an ex-officio member of all standing committees. He shall assist, where possible, with the secretarial activities of all standing and special committees. He shall keep the President informed of all activities by forwarding to him copies of pertinent correspondence. He shall present a written report of his work to the annual meeting of the SOCIETY. The Secretary shall be secretary of the House of Delegates.

Article 3. TREASURER. The Treasurer shall establish a bank account in the name of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS to receive, disburse, and account for all monies received from membership dues. He shall disburse them at the direction of the Finance Committee. The Treasurer shall have the account audited and shall prepare a statement of finances for the annual meeting. He shall direct the transfer of this account to his successor in office immediately following the annual meeting.

Chapter III. Executive Committee

The Executive Committee shall consist of the officers of the SOCIETY, the chairman of each standing committee, the President-Elect, and the Past-President of the SOCIETY. It shall meet on call of the President of the SOCIETY, and shall be empowered to act for the SOCIETY during the period between annual meetings.

Chapter IV. Accomplishment of Objectives

The objectives of the SOCIETY as outlined in Article I, Section 2 of the Constitution shall be accomplished by: (a) establishing, implementing, and revising the Minimum Standard for Pharmacies in Hospitals; (b) working with the medical profession in extending the rational use of medicaments; (c) acting as a clearing house for problems and challenges confronting hospital pharmacy; (d) maintaining proper liaison between pharmacists in hospitals, those engaged in general pharmaceutical practice, and those associated with the allied health professions; (e) developing and making available to the accredited colleges of pharmacy a course outline to serve as a guide for an undergraduate course in hospital pharmacy; (f) providing a standardized hospital training for graduates of accredited colleges of pharmacy through establishing, implementing and revising the Minimum Standard for Pharmacy Internships in Hospitals: (g) through active cooperation with the Division of Hospital Pharmacy of the American Pharmaceutical Association and the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS.

Chapter V. Membership

Article 1. MEMBERS. The membership of the SOCIETY shall consist of individuals interested in the objectives of the SOCIETY.

(a) ACTIVE MEMBERS. Active members shall be hospital pharmacists as defined in Article I, Section 3 of the Constitution, who are members of the American Pharmaceutical Association.

(b) HONORARY MEMBERS. Honorary members may be elected from among individuals who are or have been especially interested in, or who have made outstanding contributions to hospital pharmacy practice. Honorary members shall not pay dues nor shall they be eligible to vote or to hold office.

(c) ASSOCIATE MEMBERS. Associate members may be elected from among individuals other than hospital pharmacists who by their work in the health services, the teaching of prospective hospital pharmacists, or otherwise contributing to hospital pharmacy, make themselves eligible for membership. Associate members shall not be entitled to hold office or to vote. Associate members must be members of the American Pharmaceutical Association.

Article 2. DUES. Dues for active and associate members shall be three dollars ($3.00) per year, payable in advance.

Article 3. APPLICATIONS.

(a) ACTIVE MEMBERS. Applications for active membership shall be prepared on the standard form and forwarded to the Secretary of the SOCIETY. Dues should accompany the application as indicated in Chapter V, Article 2 of the By-Laws. Applicants shall be sponsored by at least one active member of the SOCIETY. The Secretary may approve all applications for membership, or when there is doubt as to qualifications of the applicant, he may require concurrence by the Membership and Organization Committee. When an active member so changes his vocation as to no longer fit the definition for a hospital pharmacist, he shall automatically become an associate member with the rights and privileges of associate membership.

(b) HONORARY MEMBERS. Nominations for honorary membership shall be approved by unanimous vote of the Executive Committee and shall be presented for vote of the membership at an annual meeting.

(c) ASSOCIATE MEMBERS. In addition to the requirements for active membership as indicated in Chapter V, Article 3 of the By-Laws, applicants for associate membership shall be sponsored by at least two active members of the SOCIETY.

Article 4. PERIOD OF MEMBERSHIP. The period of membership shall coincide with the period of membership in the American Pharmaceutical Association. Dues are payable and due on the anniversary date of this period. Membership in the SOCIETY and the obligation for dues will continue from year to year unless a member's resignation, signed by the member, is received by the Secretary prior to the end of the year for which dues have been paid. Any member in arrears for dues for one year shall cease to be a member of the SOCIETY, provided that at least two weeks before his name is removed from the rolls, the Secretary shall send him a

written notice of his delinquency together with a copy of the By-Laws pertaining to the subject. Such a person may be reinstated as a member provided his arrears have been paid and payment of current membership dues is made.

Article 5. CERTIFICATE. All members will receive from the Secretary an appropriate certificate attesting to membership in the SOCIETY.

Chapter VI. Standing Committees

There shall be five standing committees of the SOCIETY; each consisting of three or more members appointed by the President of the SOCIETY with concurrence of the Past-President and other officers of the SOCIETY.

Article 1. PROGRAM AND PUBLIC RELATIONS COMMITTEE. The Program and Public Relations Committee shall assume responsibility for the program at the annual meeting of the SOCIETY; shall assist in the sponsoring of programs for local, state, and national conventions of medical, dental, hospital, and pharmaceutical associations, working in conjunction with the program committees of the respective local and regional hospital pharmacy associations, and maintain a reservoir of suitable material representative of hospital pharmacy for display at these various conventions. Where possible it shall assist in the formulation of the program for the annual Institute on Hospital Pharmacy. It shall assist the Secretary of the SOCIETY in collecting and making available for publication, information on the activities of hospital pharmacists. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 2. MEMBERSHIP AND ORGANIZATION COMMITTEE. The membership and Organization Committee shall seek desirable members. It shall develop such plans as may be found desirable to establish state, district, and local affiliated groups of hospital pharmacists. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 3. MINIMUM STANDARDS COMMITTEE. The Minimum Standards Committee shall propose the Minimum Standard for Pharmacies in Hospitals and the Minimum Standard for Pharmacy Internships in Hospitals. It shall also develop a syllabus for specialized hospital pharmacy courses. It shall obtain opinions on hospital pharmacy educational practices, from those persons offering such training, and present an annual review of such practices as differ from the standards and that offer features desirable for other courses to incorporate. It shall review both the standards and the syllabus yearly in light of modern principles of hospital pharmacy practice and make necessary recommendations for revision. It shall seek the cooperation of the Division of Hospital Pharmacy in these activities.

Article 4. FINANCE COMMITTEE (A.S.H.P.). The Finance Committee shall consist of three members: The President, the Secretary, and the Treasurer, who may, without further action, pass on all expenditures. The Finance Committee shall prepare a budget for the succeeding year and submit it to the Executive Committee for approval.

Article 5. COMMITTEE ON PHARMACISTS IN GOVERNMENT SERVICE. The Committee on Pharmacists in Government Service shall assemble current information pertaining to problems affecting pharmacists in government service. Periodic review shall be made by the Committee of duties performed by hospital pharmacists in government service, for the purpose of recommending methods conducive to the improvement of hospital pharmacy service. The findings and recommendations of the Committee shall be transmitted to the Director of the Division of Hospital Pharmacy, who shall be responsible for obtaining evaluation of the findings and recommendations for the purpose of resolving and implementing them, either through the national Committee on the Status of Pharmacists in Government Service, or other indicated organizations.

Chapter VII. Special Committees

The President may appoint such special committees as he feels are required for the activities of his term of office, each consisting of three or more members appointed by him with concurrence of the Past-President and other officers of the SOCIETY.

Chapter VIII. House of Delegates

Article 1. MEMBERSHIP. The House of Delegates shall consist of the Executive Committee of the SOCIETY, the chairman of each Special Committee of the SOCIETY, voting delegates, and fraternal delegates. Unless otherwise specified, meetings shall be open to all hospital pharmacists. The power of vote is restricted to the Executive Committee, special committee chairmen, and voting delegates.

(a) VOTING DELEGATE. Each affiliated chapter of the SOCIETY shall be entitled to designate such delegates as its membership warrants and in a manner to be determined by each chapter. Each affiliated chapter with 50 or fewer active members is entitled to one delegate. Each affiliated chapter with more than 50 active members is entitled to one delegate for each additional 50 active members.

(b) FRATERNAL DELEGATE. Any branch or department of the United States Government such as the Army, Navy, Air Force, Public Health Service, and Veterans Administration shall be entitled to designate one delegate. Such fraternal delegates may be granted the privilege of the floor but shall not be entitled to vote. The Secretary of the SOCIETY shall annually initiate an invitation to the ranking medical officer of each of the governmental health services to appoint said delegate.

Article 2. SELECTION OF DELEGATES. Delegates shall be designated by each affiliated chapter and confirmed by the Secretary of the SOCIETY. Organizations entitled to membership must notify the Secretary of the names of delegates and alternates prior to each annual meeting so that credentials may be prepared.

Article 3. MEETINGS. The House of Delegates shall meet at a time designated by the President of the SOCIETY, on the day preceding the first day of the annual meeting of the SOCIETY. At the discretion of the President, additional sessions of the House of Delegates may be called during the period of the annual meeting.

Article 4. OFFICERS. The officers of the House of Delegates shall be the officers of the SOCIETY.

Article 5. PURPOSE. The House of Delegates shall assist the Executive Committee in the formulation of policy. Where possible, all items of new business, proposed amendments to the Constitution and By-Laws, and all controversial matters should be presented first to the House of Delegates and then to the first session of the annual meeting. It shall elect the Secretary of the SOCIETY. Each organization entitled to representation shall provide its delegate with a concise report of the activities and recommendations of the organization, which shall be presented at the call for reports. This report will also be presented in writing to the Secretary, at the meeting. This will provide an opportunity for each affiliated chapter, through its delegate to present comments and recommendations on local and national matters pertaining to hospital pharmacy practice. If it is impossible for an organization to send a delegate to this meeting, said organization shall submit its written report to the Secretary prior to the meeting.

Article 6. ORDER OF BUSINESS. At stated or adjourned meetings, business shall proceed in the following order:

1. Call to order.
2. Roll call of delegates.
3. Reading and adoption of minutes.
4. Appointment of committees.
5. Receipt of reports and other communications to the House of Delegates..
6. Unfinished business.
7. New business.
8. Adjournment.

Chapter IX. Affiliated Chapters

Article 1. REQUIREMENTS FOR AFFILIATION.

(a) All members of every affiliated chapter shall be members of the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. There must be a minimum of ten active members before a group may apply for affiliation with the national organization.

(b) The chapter shall submit a list of officers and membership, minutes of the meeting at which the request for affiliation was approved, and a statement of frequency of meetings. Subsequent changes in officers and in times of meetings should be forwarded to the Secretary of the SOCIETY.

(c) The Constitution and By-Laws shall be approved by the Executive Committee of the SOCIETY and should be patterened after the Constitution and By-Laws of the SOCIETY. Any subsequent change in the Constitution and By-Laws must be approved by the Executive Committee of the SOCIETY.

(d) The formal application for affiliation should be initiated by the President and Secretary of the chapter and directed to the Secretary of the SOCIETY who will submit such application to the Executive Committee of the SOCIETY for approval.

Article 2. MEMBERSHIP. Membership in affiliated chapters shall be restricted to active, associate, and honorary members as defined in Chapter V, Article 1 of the By-Laws. Persons not so classified may attend meetings of the chapter at the invitation of the Executive Committee of the chapter.

Article 3. DUES. Dues in affiliated chapters may be set at the discretion of the Executive Committee of the chapter.

Article 4. REPORTS. A copy of the minutes of every meeting of affiliated chapters should be sent to the Secretary of the SOCIETY immediately following each meeting, and not later than ten days following the meeting date. Additions to and changes in the membership of the chapter should be included therein.

Article 5. REPRESENTATIVES TO THE HOUSE OF DELEGATES. Each affiliated chapter is entitled to representation in the House of Delegates as outlined in Chapter VIII, Article 1, (a), of the By-Laws of the SOCIETY.

Chapter X. Publications

Article 1. OFFICIAL PUBLICATION. THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS shall be the official publication of the SOCIETY. All papers presented at the annual meeting of the SOCIETY shall be submitted to the Editor of THE BULLETIN for review and if suitable, for publication. Papers may be released for publication elsewhere on the approval of the Editor of THE BULLETIN.

Article 2. EDITOR. The Editor of THE BULLETIN shall be appointed by the Executive Committee of the SOCIETY.

Article 3. FINANCES. (THE BULLETIN). (a) The Secretary of the SOCIETY shall establish a bank account in the name of THE BULLETIN OF THE AMERICAN SOCIETY OF HOSPITAL PHARMACISTS. All monies received from advertising in, sales of, and subscriptions to THE BULLETIN, and all bills relative to publishing THE BULLETIN shall be handled through this account. The Editor of THE BULLETIN and the Secretary of the SOCIETY shall receive, disburse, and account for all monies in this account. This account shall be audited annually.

(b) The Executive Committee of the SOCIETY shall be empowered to transfer such excess funds as may accrue in this account to either the AMERICAN SOCIETY OF HOSPITAL PHARMACISTS or to the Division of Hospital Pharmacy.

Chapter XI. Annual Meetings

Annual meetings of the SOCIETY shall be held in conjunction with annual meetings of the American Pharmaceutical Association.

Chapter XII. Quorum

Fifteen members shall constitute a quorum for an annual meeting.

Chapter XIII. Order of Business

At stated or adjourned meetings, business shall proceed in the following order:

1. Call to order.
2. Roll call of delegates.
3. Reading and adoption of minutes.
4. Appointment of committees.
5. Ratification of Special Committees
6. Receipt of reports and other communications to the SOCIETY.
7. Unfinished business.
8. New business.
9. Report of Resolutions Committee.
10. Report of Nominating Committee.
11. Installation of officers.
12. Adjournment.

Chapter XIV. Affiliation

The SOCIETY shall be affiliated with the American Pharmaceutical Association and subject to such rules and regulations as may be mutually agreed upon to govern the SOCIETY.

Chapter XV. Seal and Insignia

Article 1. SEAL. The SOCIETY shall have a seal which shall consist of the device of a circle with the word "Seal" in the center surrounded by the words "American Society of Hospital Pharmacists" arranged within the perimeter.

Article 2. INSIGNIA. The insignia of the SOCIETY shall consist of the device of a mortar and pestle, the lip of the mortar being at about 250° and the handle of the pestle at about 315°, with the words "American Society of Hospital Pharmacists" inscribed through this in a semicircle, meeting the pestle on the left at juncture of mortar and pestle; the whole of this centered in a white cross on a green background.

Chapter XVI. Amendments

Every proposition to alter or amend these By-Laws shall be submitted in writing by two active members at the first session of the annual meeting of the SOCIETY and voted upon at the final session of the same annual meeting. A plurality of votes is required for approval.

American Society of Hospital Pharmacists

OFFICERS AND COMMITTEES 1950–1951

OFFICERS: *President,* I. Thomas Reamer, Duke University Hospital, Durham, N.C.; *Vice-President,* Grover C. Bowles, Strong Memorial Hospital, Rochester, N.Y.; *Secretary,* Gloria Niemeyer, 2215 Constitution Ave., N.W., Washington, D.C.; *Treasurer,* Sister M. Jeanette, Mary Immaculate Hospital, Jamaica, N.Y.

STANDING COMMITTEES

COMMITTEE ON MEMBERSHIP AND ORGANIZATION: Grover C. Bowles, *Chairman,* Strong Memorial Hospital, Rochester, N.Y.; Allen V. R. Beck, Indiana University Medical Center, Indianapolis, Ind.; Johnnie Crotwell, Druid City Hospital, Tuscaloosa, Ala.; Charles Hagan, Santa Monica, Hospital, Santa Monica, Calif.; Phyllis Platz, University of Nebraska Dispensary, Lincoln; Adela Schneider, Southern Pacific Hospital, Houston, Texas; Sr. M. Raphael, 624 Jones St., Sioux City, Iowa.

COMMITTEE ON MINIMUM STANDARDS: Sister Mary Etheldreda *Chairman,* St. Mary's Hospital, Brooklyn; W. Paul Briggs, Department of Navy, Washington, D.C.; W. Arthur Purdum, Johns Hopkins Hospital, Baltimore, Md.

CONVENTION COMMITTEE: William Slabodnick, *Chairman,* Massillon City Hospital, Massillon, Ohio; Roberta Dodds, Swedish Hospital, Seattle, Washington; Dean Friesner, Miami Valley Hospital, Dayton, Ohio; Elizabeth Lynch, Jewish Hospital, Cincinnati, Ohio; Lillian Price, Emory University Hospital, Emory University, Ga.; John Edwin Smith, Royal Jubilee Hospital, Victoria, B.C., Canada.

COMMITTEE ON PHARMACISTS IN GOVERNMENT SERVICE: Milton Skolaut, *Chairman,* U. S. Marine Hospital, Staten Island, N.Y.; Robert Statler, Veterans Administration, Washington, D.C.; Lt. R. L. Thompson, U.S.N. Hospital, Oakland, Calif.

SPECIAL COMMITTEES

COMMITTEE ON EDUCATION: Herbert L. Flack, *Chairman,* Jefferson Medical College Hospital, Philadelphia, Pa.; Charles Schwartz, 617 N. Bradley St., Weatherford, Okla.; Leo Godley, Bronson Methodist Hospital, Kalamazoo, Mich.; Evlyn Gray Scott, St. Luke's Hospital, Cleveland, Ohio; Charles Towne, Veterans Administration, Los Angeles, Calif.

COMMITTEE ON NARCOTIC REGULATIONS: Arthur W. Dodds, *Chairman,* Lynn Hospital, Lynn, Mass.; Joseph Barry, Memorial Hospital, Worcester, Mass.; Carl Brown, U.S. Public Health Service Hospital, Lexington, Ky.; Jack Kirkland, Grady Hospital, Atlanta, Ga.; Eli Schlossberg, Arizona State Hospital, Phoenix, Ariz.; Sister Mary Berenice, St. Mary's Hospital, St. Louis, Mo.

COMMITTEE ON PARENTERALS CONTAINERS: George L. Phillips, *Chairman,* University Hospital, Ann Arbor, Mich.; Norman Baker, The New York Hospital, New York, N.Y.; Mary Asquith, St. Mary's Hospital, Kitchener, Ontario, Canada; Frank J. Gregorek, Johns Hopkins Hospital, Baltimore, Md.; Walter F. Hitzelberger, Los Angeles County Hospital, Los Angeles, Calif.

A.S.H.P. REPRESENTATIVES ON POLICY COMMITTEE, DIVISION OF HOSPITAL PHARMACY: I. Thomas Reamer, (A.S.H.P. President); Don E. Francke, (Editor of THE BULLETIN); Herbert L. Flack (appointed by President); W. Arthur Purdum, (appointed by President).

PUBLICATIONS COMMITTEE: W. Arthur Purdum, *Chairman,* Johns Hopkins Hospital, Baltimore, Md.; Don E. Francke, University Hospital, Ann Arbor, Mich.; Walter Frazier, Springfield City Hospital, Springfield, Ohio; Sister Mary Junilla, Queen of Angel's Hospital, Los Angeles Calif.; Gloria Niemeyer, American Pharmaceutical Association, Washington, D.C.

DIVISION OF HOSPITAL PHARMACY

DON E. FRANCKE, *Director,* University Hospital, Ann Arbor, Mich.

GLORIA NIEMEYER, *Assistant Director,* American Pharmaceutical Associations, Washington, D.C.

MEMBERS OF POLICY COMMITTEE: Robert P. Fischelis, *Chairman,* American Pharmaceutical Association, Washington, D.C., and Glenn L. Jenkins, Purdue University School of Pharmacy, Lafayette, Ind., representing the American Pharmaceutical Association; Robert R. Cadmus, University Hospital, Chapel Hill, N.C., representing the American Hospital Association; Sister Mary Adelaide, St. Elizabeths Hospital, Youngstown, Ohio, representing the Catholic Hospital Association; and I. Thomas Reamer, Duke University Hospital, Durham, N.C.; Herbert L. Flack, Jefferson Medical College Hospital, Philadelphia, Pa.; W. Arthur Purdum, Johns Hopkins Hospital, Baltimore, Md. and Don E. Francke, University Hospital, Ann Arbor, Mich., representing the American Society of Hospital Pharmacists.

American Society of Hospital Pharmacists

Membership by States

June 1, 1950

ALABAMA
Alexander, Edgar E., V.A. Hospital, P.O. Box 623, Tuskegee Inst.
Cravens, Edward Henry, V.A. Hospital, Tuskegee
Crotwell, Miss Johnnie M., Druid City Hospital, Tuscaloosa
Hillhouse, H. C., Jefferson Hospital, Birmingham
McClusky, Daniel Otis, Jr., Druid City Hospital, Tuscaloosa
Magalian, Paul, V.A. Regional Office, Med. Div., 400 Lee St., Montgomery 4
Sherwood, Richard R., 244 W. Border Drive, Spring Hill
Sister Jane Frances Byrne, St. Margaret's Hospital, 812 Adam Ave., Montgomery
Sister Marguerite Le Fevre, Providence Hospital, Springhill Ave., Mobile 17
Sister Mary Ellen Sherlock, Providence Hospital, Mobile 17
Sister Vincent Kurtzeman, St. Vincent's Hospital, Birmingham
Vance, Clarence Joseph, South Highlands Infirmary, Birmingham

ARIZONA
Axelrod, David, 1702 W. Clarendon Ave., Phoenix
Bialk, Bernard A., Rte. 8, Box 570, Tucson (A)
Brewer, Myrdas Parrott, 2132 A. N. Forqeno, Tucson
Carroll, Edwin W., Veterans Adm., Tucson
Ferguson, Harry C., 427 E. Virginia, Tucson (A)
McLymont, James Vance, 1404 B Avenue, Douglas
Riddle, Harry R., 2902 Cushman Drive, Tucson
Schlossberg, Elias, State Hospital, Phoenix
Sister Elizabeth Joseph, St. Mary's Road, Tucson
Stewart, Newell, 921 W. Culver, Phoenix
Vellella, Louis George, Greenow Clinic, Phoenix
West, Rextell S., 362 N. 3rd Ave., Phoenix
Wilson, Ray L., 332 E. Windsor Avenue, Phoenix
Wyss, Arthur P., 1906 E. Thomas Road, Phoenix

ARKANSAS
Bennett, Victor M., Dept. of Pharm., College of Ozarks, Clarksville (A)
Goodrum, Mrs. Frank A., 2000 S. Taylor, Little Rock
Kepner, Sewall K., V.A. Hospital Pharmacy, North Little Rock
Sister M. DeSales Joyce, St. Michael's Hospital, Texarkana

CALIFORNIA

Alekna, Emily A., 70 W. California, Apt. 9, Pasadena
Aninos, Chrisanthi, 40 Sweeney St., San Francisco
Appel, Alice Marie, Pharm. Dept., Seaside Hospital, Long Beach 13
Austin, Harry W., French Hospital, San Luis Obispo
Baker, Mrs. Gertrude M., 538 N. Louise St., Glendale 6
Barnett, Mrs. Lorena B., Cowell Memorial Hospital, Berkeley 4
Beard, Henry Wallace, 581 Sawyer St., San Francisco 24
Bergman, Lillian C., 135—23rd Ave., San Francisco
Bertrand, Charles J., 45 Montecito, San Francisco
Braiden, Mary Carylon, 547 S. Mariposa, Los Angeles
Brodie, Donald C., Univ. of Calif. Coll. of Pharm., Medical Center, San Francisco 22 (A)
Brodie, Louis, 3017—22nd St., San Francisco
Buckmaster, Marion A., c/o Pharmacy, Keiser Fontana Hospital, Fontana
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Busick, Claude L., St. Josephs Hospital, Stockton
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Caruso, Michael, 1605 E. McMillan St., Compton
Chew, Miss Ruby, 2420 W. Jefferson, Los Angeles 16
Chiles, Philip L., 335 E. 61st St., Los Angeles
Chilgren, Edward A., 1430—32nd Ave., San Francisco
Cockrell, Alfrieda Zinser, Administrator, Northern Inyo Hosp., Bishop
Cole, Burr R., 8228 Geary, San Francisco
Crosby, Philip A., 1155 W. Badillo, Covina
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Duggan, Margaret, 1537 W. 58th St., Los Angeles
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Fernalld, Maybelle, 2425 Eye St., Sacramento 16
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Grant, Mary J., 6760 Milner Rd., Hollywood 28
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Harding, Chester E., St. John's Hospital, Santa Monica
Harms, William Albright, 4426 Second Avenue, Los Angeles 43
Heard, Jack Stuart, 3121 Santiago, San Francisco 16
Henry, Clara Marie, 526—35th St., Oakland
Henry, Mrs. Myrtle Eva, 926 Garfield, Santa Ana
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Herndon, Mrs. Grace, 314 A Redondo, Long Beach
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Lovotti, Carl D., 450 Sutter St., San Francisco 8 (A)
Loustalet, Mrs. Edith M., 4040 Garden Ave., Los Angeles 39
Martin, Florence Louise, 846 W. Santa Barbara, Los Angeles 37
Matsuura, Perry S., 2070 Clinton Ave., Alameda
McCain, Taylor K., 6342 Vicland Place, N. Hollywood
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Nigro, Nelly Amelia, 2390 Cedar Ave., Long Beach 6
Nobe, Sydney, 2106 W. 29th Pl., Los Angeles 18
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Sister Anna Marie, Hilcrest Drive, San Diego
Sister Mary Albertine Sage, 2301 Bellevue Ave., Los Angeles 26
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Sister Mary Clarissa Aherne, St. Bernardine's Hospital, San Bernardine
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Ting, Peggy, 28 Salmon St., San Francisco
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Sister Maria Lucia, The Hospital of St. Raphael, 1450 Chapel St., New Haven
Sister Mary Germaine Hanley, St. Francis Hospital, 114 Woodland St., Hartford
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Sullivan, Francis J., Grace-New Haven Community Hospital, Pharmacy Dept., New Haven
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Swett, Paula S., 321 Woodridge Ave., Fairfield
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Kershaw, Clarence, 1224 Washington, Wilmington
Potocki, Paul, 221 S. Franklin St., Wilmington 14

DISTRICT OF COLUMBIA

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Fischelis, Robert P., Westchester Apartments, 4000 Cathedral Avenue, N.W., Washington, D.C.
Foster, Thomas A., U.S. Public Health Service, Federal Security Building South, Washington 25, D.C.
Gassett, Wm. McKinley, Emergency Hospital, 1711 N.Y. Ave., N.W., Washington, D.C.
Gooch, John M., VA Central Office, Pharmacy Division, Rm. 805, Washington 25, D.C.
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Typical Days in a British Hospital Pharmacy

By John C. H. Hanson, M.P.S.

Monday

The two assistant pharmacists, aided by our girl student, get to work replenishing the ward stocks, always a heavy job after a week-end. I consult desk diary to clear up "left-overs" from the previous week.

Item one—undecylenic acid. A staff physician had recently noted a report in the *J. Am. Med. Assoc.* describing the use of undecylenic acid in psoriasis and had requested a supply. The research laboratories of a well-known manufacturer had been glad to cooperate, but I must keep my promise to pass on interim reports. Their director of research is glad to hear that the disintegration time of the enteric-coated capsules, which we had previously discussed at length, is satisfactory so far. Our patient complains only very occasional eructations with a flavor of "cheap perfume."

Item two—streptokinase. We have recently been using this, along with streptomycin, as a combined intrathecal injection, in tubercular meningitis. The original authors of the paper in *The Lancet* were good enough to give us some of their material. They are interested in telephoned details of our first case and offer to send a further small supply, but being overwhelmed with requests they suggest that, if they give us the "know-how," our Pathological Laboratory might attempt the manufacture. The Laboratory is as busy as we are, so someone is going to heave a few sighs. Perhaps we can enlist some more help from a manufacturing house.

Interruption number one—a visit from the Matron and a Ward Sister (query, Director of Nursing and Head Nurse in the U.S.?). Am I aware that some wardrobes installed recently for nurses have keys which will unlock some of the ward narcotic cupboards? This calls for a major check-up and changing of locks.

Interruption number two—the senior obstetrician. Can he inspect the new electric breast pump which has just been delivered. Hastily fit electric plug and connect up. It functions well and looks like a useful piece of apparatus. Light relief is provided by my senior assistant's irreverent suggestion that the pump should be lubricated with gripe water (query, do you call this dill water or aqua anethi in the U.S.?) and then patted to release flatus.

Mr. John C. H. Hanson, M.P.S. is chief pharmacist to the following hospitals: Hertford County Hospital, Hertfordshire County Sanatorium, and the East Hertfordshire Infectious Disease Hospital in England.

After lunch I interview, with assistant administrator, candidates for vacant post of medical storekeeper. This pharmacy is responsible for buying and issuing all medical stores, drugs, instruments, dressings, etc., for three hospitals and the departure of an experienced storekeeper has thrown a heavy additional burden on the remaining members of the staff. The choice is between local youth with inexperience and a war veteran, older, but with excellent experience in military hospitals in Britain and Occupied Germany. We pick the veteran and hope that we'll manage to find him a place to live. Thank heavens he is single, or it would be practically impossible. He hopes to marry soon, though, but we'll cross that bridge when we get to it.

Back to the Pharmacy for a quick cup of tea, an infusion that is always made willingly in British pharmacies, and then I assist with prescriptions from the Paediatric Outpatient Clinic.

The rest of the staff round off a busy day with the day's orders which have just arrived from the County Tuberculosis Sanatorium and from the Infectious Diseases Hospital.

Tuesday

After the morning mail, I start the monotonous job of organising a physical check and inventory of all gas cylinders in the three hospitals for which I am responsible. Cylinders tend to collect in "pools" and they must be kept on the move if the ever-increasing demand for medical gases is to be met quickly.

Next a visit from the chairman of our newly constituted hospital group. This grouping of hospitals—a provision of the new National Health Service—is intended to coordinate the activities of a number of institutions in each area (our group has a radius of about 15 miles). The aim is to include, or establish, in each area, at least one of the commoner types of institutions, such as general medical and surgical, tuberculosis, maternity, and infectious diseases hospitals. Ultimately, each group will possibly be administered as one large hospital serving the whole area. Hospitals specialising in brain, plastic, orthopaedic surgery, etc., will be developed on a larger regional basis. The particular subject for discussion this morning is our plan to set up a new transfusion solution and Central Sterilisation Department. It is proposed that we use a War Gas Decontamination Centre which was built but, happily, never used, in the recent war. This is the pharmaceutical equivalent of beating swords into ploughshares.

Wednesday

A busy morning at the desk getting off the orders to manufacturing houses. The supply position for most drugs is now practically back to normal. With surgical instruments and equipment, there are still long delays. This is chiefly because most of the makers are required to set aside a large proportion of their output for export. We have, for instance, been waiting over a year for the delivery of a gastroscope.

After an early lunch I go to London to attend a meeting of the County Pharmaceutical Committee. This body, constituted under the National Health Service, has representatives of retail proprietor pharmacists, company pharmacists (do you call these chain stores?), employee pharmacists (drug clerks in U.S.?), and hospital pharmacists. Our duty is to see that the pharmaceutical service, as a whole, is functioning satisfactorily, and we deal with a variety of subjects. Among these are the arranging of hours of business for retail pharmacists and the establishment of rotas so that each pharmacy in turn takes a "late-duty week" to handle emergency work. We also consider analysts reports on "test prescriptions" presented under the National Health Service. The careful work of Dr. Samuel W. Goldstein on "Prescription Tolerances" published in the *Journal of the American Pharmaceutical Association,* is valuable when considering this subject.

Another subject on the agenda is the question of whether Pharmaceutical Departments staffed by salaried pharmacists shall be established in Health Centres. On this and other subjects the discussion is brisk and forthright but, in spite of the differences of opinion which exist, there is a great satisfaction to be gained by getting together with other pharmacists working in other fields. We are all, in our various ways, trying to help the man who really matters—the patient.

Thursday to Saturday

These are "normal" days in the pharmacy which means, in my case, general supervision of the work and giving assistance at peak periods and on special jobs. One of these is the preparation of sterile solution of toluidine blue for use as an intravenous anti-heparin injection. The article by William P. O'Brien in THE BULLETIN is helpful, but we wish to test our products for sterility. This involves considering the possibility that toluidine blue, by acting as a bacteriostatic, may give a false negative result in the areobic and anaerobic cultures. We find, however, that in the dilutions which we make this is not the case.

Monday

After clearing the miscellaneous work, I give more consideration to the subject of the Central Sterilisation Unit. I visit two of our satellite hos-

pitals, the Sanatorium and the Infectious Diseases Hospital, to examine the equipment and to carry out, for my own information, some tests on sterilisation. I find the Ecker technic useful for this work. The whole field of sterilisation has, of course, been excellently surveyed in Carl Walter's text, *The Aseptic Treatment of Wounds* and I find my own copy of this work invaluable.

In smaller hospitals it is often difficult to decide who is to be responsible for the general supervision of sterilisation processes. The assistance of the Bacteriological Department is, of course, important, but frequently the hospital pharmacist is the only person who has the broad background and the wide assortment of knowledge which is essential in dealing with this complex subject.

My own preference is for the responsibility to be borne by a Sterilisation Committee consisting of a bacteriologist, a surgeon, a physician, a pharmacist and a nurse. This committee should then make a regular routine inspection of all sterilisation processes in the hospital. The responsibility for day-to-day operation must, however, rest with one individual, and here the training of the pharmacist is useful.

Tuesday to Thursday

During these days, we find time to discuss the current series of lectures on pharmacology which we are giving to the student nurses. The great difficulty is to know what to leave out, especially as the present rapid advances in therapeutics make text-books out of date almost as soon as they appear.

This development of new and often costly remedies also affects the annual budgeting, to which I give some preliminary consideration. As the purchasing officer for all pharmaceutical, medical and surgical supplies, I am required to produce an estimate of expenditure for a period which terminates in 1951. The speed and intensity of modern research makes it hard to foresee what drugs will be available and in frequent use in a year's time. I am sure that the advent of newer and costly antibiotics will call for a large increase in our expenditure. This will be well worth while, on economic grounds alone, if the patient's stay in the hospital is reduced as spectacularly as in the case of a typhoid sufferer treated recently with Chloromycetin.

Friday

An early call at the Pharmacy and then I go to London to attend a meeting at the British Standards Institution. I represent hospital pharmacists on two sub-committees, one dealing with the standardization of laboratory glass ware and the other dealing with transfusion equipment.

During the recent war the blood-transfusion services in Britain were coordinated and greatly expanded. It is now proposed to make available standard flasks, fittings and equipment for all parenteral products including blood, plasma, physiological solutions of sodium chloride, and so on. Much time and effort will be saved when this necessary rationalisation has been achieved. It would be even better if it were possible to set up International Standards for these articles and this aim is not so remote as it might once have appeared, since so much British and American equipment used on the Continent of Europe during the war, has since come into general use.

Saturday

Back to the pharmacy to finish up for the week and clear the decks for next week's work. What this will be it is impossible to foresee in detail, but one thing is certain and that is that new problems are sure to arise and the solving of them will bring the satisfaction that is the most lasting reward of the hospital pharmacist.

Left: A section of the new sterilization unit at Hertford County Hospital. Below: A corner of the Pharmacy at Hertford County Hospital.

Photographs courtesy
Pharmaceutical Journal

MANUFACTURING PHARMACEUTICALS

in the Hospital Pharmacy

Some factors governing the economy of preparing medicinals within the hospital are discussed.

By LOUIS GDALMAN

SURVEY of the literature of the past decade concerning vast manufacturing endeavors in the pharmacy departments of various types of hospitals indicates clearly that the basic assumption for expansion in this direction is the enormous economies that result. While these effected economies are of paramount importance to the hospital administration directly, and to the public indirectly, the institution of a basic philosophy involving the pharmacist's attitude toward himself, his position as a professional, scientific member of the medical team servicing the health needs of the public, is an encouraging entity. The direct antithesis of the retail practice of pharmacy, commercially directed into a myriad of non-pharmaceutical avenues, is the professional hospital pharmacist operating a manufacturing unit, in which he utilizes the entire scope of his knowledge in the pharmaceutical, physical and biological sciences, along with his business and professional experiences.

With economics established as the fundamental basic determinant in manufacturing in the hospital pharmacy, analysis of the following factors are essential to the establishment of a soundly administered department:

1. Size and type of institution
2. Medical staff organization
3. Physical facilities
4. General pharmaceutical, laboratory, and mechanical equipment
5. Hospital, manufacturing, and clinic formularies
6. Library facilities
7. Personnel
8. Product selectivity
9. Product quality and consistency evaluation, checking methods, assay methods
10. Cost analysis, comparison analysis, effected savings' determinations (Records)
11. Effected economies to patient
12. Professional service evaluation and contribution to hospital

It is clear that pharmaceutical manufacturing is integrated and interwoven into the entire hospital pharmacy service. The purpose of this article is to present a general dissertation of the factors involved in hospital pharmacy manufacturing.

The relative size and type of institution merely affects the quantity of manufacturing and not the advisability or decision to manufacture. Economies effected are in direct proportion to quantity production. Many hospital pharmacists of smaller institutions are daily increasing their manufacturing capacities. Cathcart, in a hundred bed institution, reports an average savings of $9.48 per manufacturing hour, based on an annual analysis of manufacturing records.[3]

PHARMACY AND THERAPEUTICS COMMITTEE

The exceedingly important factor governing the types and kinds of medicaments ordered is based entirely upon the organization of the attending, resident, and intern staff of the institution. With a highly integrated, organized staff of trained specialists, the organization of a Pharmacy and Therapeutics Committee, and establishment of hospital and clinic formularies are perhaps more easily accomplished in the non-voluntary, that is, government and university hospitals. In the voluntary institutions, serving facilities largely to private patients, organization of this type is more difficult, for most physicians desire an unrestricted hand in the armamentarium of medicaments they may prescribe for their pa-

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tients. An attempt at guidance or restrictions of any sort often leads to vast misunderstanding. The same principles apply to smaller hospitals, voluntary or non-voluntary, where there may be a completely organized staff or a heterogeneous group of practitioners.

Where Pharmacy and Therapeutics Committees exist; where hospital formularies function; and where clinic procedures and formularies are established; the hospital pharmacist can easily integrate a program of manufacture, for his selectivity of products can be controlled and assured to a marked extent. In voluntary hospitals, small or large, where no formularies, committees, and bulletins exist; and where choice of medicaments is uncontrolled to any extent, the hospital pharmacist must exercise careful judgment in organization, selection, and manufacture of medicaments. His efforts to control his inventory by eliminating duplications and by surveyed manufacture, must be augmented by a program of detail and educational contacts with the entire medical and nursing staffs.

Some products that may be manufactured include:

1. Official preparations of the U.S.P. and N.F.
2. Private and research preparations
3. Small and large volume sterile preparations.
4. Non-pharmaceutical preparations.
5. Extemporaneous preparations.

These categories may include: solutions, capsules, powders, tinctures, elixirs, mixtures, lotions, liniments, tablets, ampuls, suppositories, syrups, ointments, spirits, magmas, jellies, inhalants, emulsions, parenteral solutions, multiple dose injections, and so forth. The non-pharmaceutical preparations may include deordorants, duplicating fluids, floor waxes, metal polishes, inks, flavoring extracts, cosmetic preparations, and so forth.

COST OF MANUFACTURING

The chief assumption in the institution of a program of manufacture is the production at a lower cost of highest quality standard products comparable to those available commercially, plus the service of production of new, extemporaneous, and research products not available in the market. The purchase price of any commercial product includes the following charges:

1. Material
2. Labor
3. Overhead
4. Control
5. Advertising
6. Profit.

The cost of overhead in a manufacturing pharmacy should be lower than that of a large pharmaceutical manufacturer. The cost of equipment can be amortized over a long period of years.

The elaborate and expensive system of controls that are so essential in large manufacturing laboratories are, with few exceptions, unnecessary in the hospital pharmacy, where one or two employees manufacture an item from beginning to end. The charges for advertising and profit are entirely eliminated in case of the hospital pharmacist. It is clear, therefore, that the chief advantage of manufacturing in the pharmacy is one of lower cost. Most manufacturing hospital pharmacists have shown, in an analysis of their production, that costs can be reduced in a range from 25 to 50 per cent, or even greater, on most items.

SAVINGS THROUGH MANUFACTURING

Kumpf estimates that the minimum savings that can be effected is not less than $2,000 annually for each 100 beds, while a 500 bed institution can save approximately $10,000, or more, per year, especially if it services other units such as outpatient dispensaries, student health service, and so forth.[7]

The quality and the consistency of the products manufactured, should and must compare to the best obtainable commercially. It is not beyond the ability of the trained pharmacist to apply his knowledge and talents to such production. The vast majority of preparations do not require any more special technics and equipment than those with which the average pharmacist is already acquainted and trained to employ. It is a misapprehension to assume that this ability is beyond the scope of the hospital pharmacist. As a matter of fact, the records of the manufacturing hospital pharmacists prove just the opposite.

Statia reports the following:[15]

1. The manufacture of stains and reagents for the laboratory at one-tenth the cost of the same solutions if purchased.
2. The preparation of a tincture of a quaternary amonium compound effecting a savings of over $5 per gallon.
3. The repackaging of anesthetic ether from large volume containers reduced the cost one-half.
4. Sterilization of sulfonamide powders provides these chemicals at one-third the price of the purchased article.
5. Preparation of milk of magnesia from a concentrate paste reduced the cost to 25c per gallon.
6. Manufacture of an alcohol-formaldehyde germicidal solution at a savings of over $5 per gallon.
7. Production of a non-greasy hand lotion at $1.25 per gallon, in comparison to a similar commercial article at $6 per gallon.
8. Production of red and black ink at slightly

over $1 per gallon, in comparison to $3 per gallon for the commercial product.
9. Furniture polish produced at a saving of $1.50 per gallon.
10. Fly spray and volatile deodorant (chlorophyll type), saving over $2.50 per gallon.
11. Floor wax paste, floor wax liquid, moth proofing solution, saving $1 per gallon.

Rasmuson reports over 97 preparations manufactured with savings ranging from 25 to 90 per cent. Included among these, for example, was a compound effervescent saline cathartic at 18c per lb., compared to the purchased article at 98c per lb.; an elixir of thiamine chloride at 16c per qt., compared to a similar commercial product at $2.63 per qt.; and even a brushless shaving cream for ward use. [13]

Purdum tabulates the following data from his manufacturing unit:[12]

1. Aluminum Hydroxide Gel	$0.98 Gal.	compared to	$3.63 Gal.
2. Benzyl Benzoate Lotion	4.02 Gal.	compared to	8.90 Gal.
3. Kaolin and Pectin Mixture	0.91 Gal.	compared to	5.10 Gal.
4. Liquid Petrolatum Emulsion 65 per cent	1.22 Gal.	compared to	2.24 Gal.
5. Milk of Magnesia	0.34 Gal.	compared to	0.85 Gal.
6. Ammoniated Mercury Ointment	0.40 lb.	compared to	1.32 lb.
7. Boric Acid Ointment	0.28 lb.	compared to	0.81 lb.
8. Ichthymol Ointment	0.55 lb.	compared to	1.80 lb.

The University of Illinois in one of its annual reports indicated the following production record: 30 types of pharmaceutical preparations, employing 276 formulas, 68 of which were especially developed in collaboration with the medical staff. Included were such quantities as (in round figures):[1]

100,000 capsules	2,000 pounds ointments
200 gallons elixirs	53 pounds powders
125 pounds jellies	450 gallons solutions
15 gallons liniments	60 gallons tinctures
70 gallons lotions	1,000 suppositories
28 gallons magmas	100 gallons miscellaneous liquids

DeKay reports the following production record during one semester at Purdue University School of Pharmacy for the Student Health Service:[4]

100,000 capsules	1,000 gallons liquid preparations
200 pounds ointments	100,000 tablets

Oliver reports the production in one year of 42 gallons of cough syrups at an average cost of $4.65 per gallon, while comparable proprietary products, which in many cases have much less potency of active ingredients, cost over $9 per gallon; also the production of 4,900 suppositories at an average cost of $2.72 per hundred, compared to products costing an average of $7.48 per hundred.[11]

USEFUL EQUIPMENT

The problem of equipment required to undertake a program of manufacturing is not as complicated or as costly a factor as might be assumed. The vast majority of preparations can be manufactured with little more than the ordinary prescription and laboratory equipment already available in the average hospital pharmacy. However, depending upon the development of the scope of the manufacturing unit, it may become necessary and profitable to invest in some of the following equipment: water still, batch mixer, glass-lined storage tanks, portable mixer, ointment mill, tablet machine, powder mixer, wet and dry granulator, capsule filling machine and discs, bottle filling apparatus, viscolizer, filter transfer pump, suppository machine and molds, hot plate, water bath, tube filling machine, and homogenizers. The cost and upkeep of most of this equipment, when properly amortized and depreciated over a number of useful years will prove to be a minor item in cost of production.

STERILE SOLUTIONS

With a well established solution laboratory, large volume parenteral fluids, ampuls, sterile solutions in multiple dose containers, sterile diluents, sterile anticoagulant solutions, and miscellaneous sterile solutions and solids can be prepared.

One of the most controversial subjects among administrators and among hospital pharmacists themselves is the question of the establishment of sterile solution preparation as a manufacturing endeavor. Sister M. Clara Francis emphasizes that the manufacture of intravenous liquids can be a practical, profitable, and fascinating achievement for the hospital pharmacist.[14] In preparing 13,000 liters of 5 per cent dextrose solution in a fiscal year, her report indicates a difference of 68c per liter between the purchase cost and manufacturing cost, resulting in a savings of $8,840 for this one item. Long, Godley, Armbruster, and many others report very successful achievement in this field.[9,5,2] Administrator Meade, in a survey of 15 institutions ranging from 250 to 1,200 beds, which prepare their own parenteral fluids summarizes:[10] "It has been abundantly shown by actual practice that the preparation of intravenous fluids can be

carried out safely and economically by hospitals of moderate size—250 beds and over." Yet, in this large medical area, less than 5 per cent of the institutions manufacture their parenteral fluids. Administrator Hansen reports that in plans for a 250-bed hospital no provisions for the manufacture of sterile intravenous solutions were made because he is not as yet convinced that it is an economical procedure for this type of institution.[6]

TABLET MANUFACTURE

Another controversial matter is the economy involved in the manufacture of compressed tablets. Kumpf, Templeton, and many others, especially pharmacists at university hospitals, indicate marked success in this endeavor.[7,16] The vast majority of hospital pharmacists are not engaged in this practice. Less than 2 per cent in this area undertake this manufacturing project. Statia indicates that it is generally agreed that the manufacture of tablets is not necessarily a wise procedure.[15] He based the claim on a survey visit of many large and small pharmacies in hospitals with from 50 to 1,700 beds, many of which made their own tablets. Even the 1,700-bed hospital claimed that the time consumed and trained skill necessary to produce a consistently good product did not compensate for the small savings effected.

FLOOR SPACE

The factor of adequate space to establish a manufacturing unit will depend entirely on the extent of the venture. Hospital architects allocate approximately five square feet of floor area per bed to the pharmacy department, and an additional five square feet of floor area per bed if a solution department exists. The general plan allots 25 per cent for manufacturing space, 50 per cent for storage, and 25 per cent for dispensing. This certainly is not a rigid plan, and physical facilities and arrangements should depend entirely on the scope of manufacture and service.

The fluid unit described by Sister M. Clara Francis has a total of 600 square feet and a monthly production of 2,500 flasks.[14] Based on this monthly production, the space allotment per flask is 0.24 square feet.

The important factor of adequate and competent personnel, such as trained pharmacists and trained technicians, is an absolute necessity in conducting a manufacturing unit. The size of the staff will be directly proportional to production.

The factors of maintaining complete records, including cost of material, overhead, amortization of equipment; and making an analysis to compare the cost of items manufactured in the pharmacy with those available commercially, are the essential records in determining the success of the manufacturing venture. These obvious points need stress, not repetition.

CONCLUSION

This survey indicates that favorable economies, quality production, and increased professional services can and do result from hospital pharmacy manufacture. The scope and extent of this service will depend, to a major extent, on the ability, initiative, and attitude of the hospital pharmacist.

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THERAPEUTIC TRENDS

New trends in medicine and pharmacy include SUBDAMINE — PHENYLINDANDIONE — LUTEOMYCIN IV TETRACAINE — DIHYDROSTREPTOMYCIN locally

SUBDAMINE

Clinical trials to determine the analgesic and sedative action of Subdamine indicate that it is a satisfactory therapeutic agent for use in the treatment of the psycho-neurotic patient where symptoms due to anxiety and tension predominate. It was also found to be a valuable therapeutic adjunct in patients with organic disease such as hypertension and the climaterin where psychoneurotic symptoms are so frequently present. Chemically Subdamine is l-diethylcarbamylpiperazine.

In the animal experiments Subdamine showed a potent sedative, with a low somnifacient activity. Because of its low toxicity and definite sedative action, clinical trial seemed warranted in a group of cases in which tension, restlessness and excitability were present. It differs from the hypnotics in that it effectively controls the extreme restlessness produced by toxic doses of ephedrine and amphetamine without forcing sleep. Subdamine resembles the bromides more closely than any other sedative or hypnotic.

Of a total of 83 patients treated with Subdamine in divided doses three or four times daily for periods varying from two to twenty weeks, 63 or 76 per cent reported some degree of improvement. In a group of 66 patients with predominantly functional manifestations, some degree of amelioration of symptoms occurred in 86 per cent.

Although approximately similar relief of symptoms was obtained with small doses of phenobarbital, this was accompanied in some cases by drowsiness not present when taking Subdamine. It was noted that Subdamine has a definitely calming and quieting effect without producing drowsiness. Symptoms which respond to this therapy include restlessness, excitability, increased tension, and anxiety.

Only one severe toxic reaction was encountered, mild disorientation at night which disappeared on discontinuing the drug. In all, eight patients showed some untoward reaction which included five cases of nausea, two of dizziness and one of vomiting.

This preliminary study was done at the New York Medical College, Metropolitan Hospital Research Unit and reported in the *N.Y. State Med. J.* **50**:1257 (May 15) 1950. Subdamine was supplied by the Research Department, Lederle Laboratories, Division of American Cyanamid Company, Pearl River, N.Y.

ANTIHISTAMINES FOR LOCAL GASTROSCOPY

Use of antihistaminic drugs for local gastroscopy has produced excellent anesthesia in the pharynx of patients undergoing gastroscopic examination. According to a report in *Gastroenterology* **14**:535 (April) 1950, no toxic or untoward effects were observed in 42 patients who were subjected to gastroscopic examination after anesthetizing the mouth and pharynx with a solution of one of the antihistaminics.

Noting that these drugs produce anesthesia when applied locally to the denuded skin, it was believed that a solution of the antihistaminics would produce satisfactory anesthesia prior to gastroscopic examination without toxic effects. Although the incidence of toxic reactions when using Pontocaine is low, they do occur, and therefore use of any preparation eliminating such toxic reactions is advantageous.

Using one per cent solutions, Benadryl was used in four cases, Neoantergan in six and Pyribenzamine in 33, all of which had apparently equal effect. The effect lasts a shorter time than that of Pontocaine, but persists approximately an hour, sufficient time to make the examination in a leisurely manner.

The commercially available tablets or capsules of the antihistamines were used first, but later solutions were prepared from the pure crystals supplied by the respective manufacturers.

NEW ANTICOAGULANT

Although heparin and dicumarol are both useful drugs for use as anticoagulants, each has its limitations and accordingly, search goes on for newer drugs that lack some of these limitations. Clinical trials using Phenylindandione as an anticoagulant are reported in *Circulation* **1**:1195 (May) 1950. From observations made in these

studies, it appears that phenylindandione, if used with caution, could meet the need of clinicians for an anticoagulant intermediate in action between heparin and dicumarol, resembling dicumarol more closely than heparin in its behavior. An initial dose of 200 mg. is adequate with a daily maintenance dose of 65 mg. The speed of action of the drug varied in the different patients. In 18 cases the desired prothrombin level was reached in from 10 to 20 hours; in 20 cases it was reached in from 20 to 28 hours; in 7 cases in 29 to 40 hours; and in 3 cases in 40 to 50 hours.

Phenylindandione was supplied for investigational use by Charles Frosst Company, Montreal, Quebec, under the tradename Danilone.

LUTEOMYCIN

Luteomycin is the name of a new antibiotic isolated from *Streptomyces* resembling *Streptomyces aureus*. It is a substance of orange yellowish rhomboid crystals. A description of its mycological properties, cultivation method of the strain, and method of purification, antibiotic spectrum, chemical and biological properties, mechanism of action, toxicity, etc. are reported in *J. Antibiotics* (Japan) **3**:320 (April) 1950.

IV TETRACAINE

Tetracaine hydrochloride (Pontocaine) was administered intravenously to patients suffering from asthma, various pain syndromes, complications of leprosy and miscellaneous conditions. In a study reported in *Arch. Internal Med.* **85**:972, a total of 104 patients were treated of which 98 were relieved. Injections of 0.25 per cent solutions were administered slowly by the intravenous route over a period of about three to five minutes. Toxic reactions were minimal. In all patients in whom this therapy was employed results were far superior to those obtained from palliation in the form of diathermy, massage, infra-red radiation and liniment. In the over-all series it was noted that the number of visits per patient to the clinic decreased remarkably when tetracaine was used.

The actions of tetracaine when given intravenously are apparently antihistaminic, analgesic and antispasmodic. In addition, the drug seems to have a selective affinity for inflamed or traumatized tissue, concentrating in these areas. It also improves local circulation in the injured region, thus altering the pathophysiologic state. In addition, tetracaine may also act directly on hyperirritable or hypersensitive nerve tissue, as shown by its effect in the relief of hyperactive carotid sinus syndrome.

The author emphasizes the fact that all patients should be watched carefully during injection and the drug administered slowly. Possible untoward effects to be looked for include allergy, total vasomotor collapse and the typical reaction to local anesthetization, which starts with convulsions and excitement, and proceeds to medullary paralysis and respiratory failure.

DIHYDROSTREPTOMYCIN LOCALLY

Use of the new antibiotic, dihydrostreptomycin, for local therapy is reported in *Arch. Dermatol. and Syphilol.* **61**:648 (April) 1950. The clinical reports and bacteriologic observations in the course of treatment of 159 patients with dihydrostreptomycin in various bases is reported. Using the drug in an ointment, five mg. per Gm., it was found to be an effective agent for the treatment of pyogenic infections of the skin. In general, dihydrostreptomycin has been found to be effective against all gram-positive bacteria with the exception of the clostridia, and against the majority of the gram-negative bacteria.

On studying the combination with various ointment bases it was found that dihydrostreptomycin is more readily released from an oil-in-water and greaseless Carbowax bases. Dihydrostreptomycin is stable in bases and in solutions. Compresses using a solution containing five mg. per Gm. of dihydrostreptomycin were used. Laboratory tests show that no appreciable loss of drug is apparent after three months.

Effectiveness of dihydrostreptomycin therapy showed a favorable comparison with the results which have previously been reported, using bacitracin, penicillin, the sulfonamides and nitrofurazone. Good results using dihydrostreptomycin therapy usually occured rapidly. The prolonged use of the agent is not advocated as poor results may be due to drug fastness. The incidence of reaction was 3.7 per cent.

Bases with the following formulas were used successfully in these preliminary studies:

BASE NUMBER		GRAMS
1.	Carbowax 1540	36.00
	Carbowax 4000	18.00
	Polyethylene glycol 200	46.00
2.	Cetyl alcohol	21.00
	Glycerin	21.00
	Sodium lauryl sulfate	2.00
	Propylparaben	0.02
	Distilled water, to make	100.00
3.	Cetyl alcohol	8.00
	White petrolatum	20.00
	Light liquid petrolatum	18.00
	Propylparaben	0.02
	Distilled water, to make	100.00
4.	White petrolatum	100.00

CURRENT LITERATURE

Edited by SISTER MARY ETHELDREDA, *St. Mary's Hospital, Brooklyn, N.Y.*

AMERICAN PROFESSIONAL PHARMACIST

MAY, 1950—"Indiana University Medical Center Acts on a Supply Problem" by Allen V. R. Beck. The experiences encountered in the standardization of drug supplies in this 650 bed Medical Center are effectively described.

page 456

JUNE, 1950—"A Review of Hospital Pharmacy for the Recent Pharmacy School Graduate." Adapted from an article appearing in *Pharma-Conn,* University of Connecticut College of Pharmacy student publication. A frank discussion with helpful suggestions for an individual evaluation of possible careers in institutional pharmacy.

page 544

HOSPITALS

JUNE, 1950—"An Antibiotic Room Can Conserve Nursing Hours," by Martha E. Graff, R.N. Describes an antibiotic room established in the department of nursing independent of the Central Supply Service and the Pharmacy. Drugs are received from the Pharmacy and dispensed to each ward unit in a form suitable for administration from this centralized antibiotic center.

page 45

JULY, 1950—"Elements of Hospital Operation." Prepared by the Public Health Service, Division of Medical and Hospital Resources. The factors to be considered in maintaining pharmaceutical service as a part of the hospital operation are listed, along with the other professional services. A guide for establishing policies and procedures for the Pharmacy Department is also presented. The hospital drug room for a hospital without a pharmacist is also discussed.

page 25 of 32 page insert

"Pharmacy Standards." An announcement of the approval by the Board of Trustees of the American Hospital Association of the Minimum Standards for Pharmacies in Hospitals as revised by the Council on Professional Practice of the Association.

page 121

HOSPITAL MANAGEMENT

MAY, 1950—"The Problem of Inclusive Rates" by W. K. Hargreaves. The effect of costly medicines and antibiotics on the inclusive rate plan is included in this presentation.

page 47

"Hospital Pharmacists Submit Proposed Minimum Standards for Consideration." The standards are presented "in toto."

page 98

"What Do Minimum Standards Do For the Hospital Pharmacist." Excerpts from the presentation of Jane L. Rogan at the Tri-State Assembly.

page 102

"How the Drug Committee Works in Hospital Management," Ivor E. Reed, M.D. of Harper Hospital, Detroit, Michigan, describes the efficient drug committee functioning at the institution.

page 104

MODERN HOSPITAL

MAY, 1950—"Pharmaceutical Exhibits" by Warren C. Rainer. The author presents his view on the benefit of exhibits to doctors and to the hospital.

page 94

"Emergency Treatment of Common Poisons." A complete list tabulated under the headings: Poison, Symptoms, Emergency Treatment, Specific and Supportive Treatment.

page 1106

JUNE, 1950—"Parenteral Fluid Therapy—Basic Principles." Describes the physiologic homeostatic mechanisms involved in acid-base and water imbalances and the working knowledge necessary for correction of these disturbances by the rational use of parenteral fluids.

page 106

SOUTHERN HOSPITALS

JUNE, 1950—"The Nurse and the Pharmacist." First part of a paper presented by Sister Florence, R.N., Director of Nursing, Charity Hospital, New Orleans, La., at the October meeting of the Southeastern Society of Hospital Pharmacists. Discusses responsibility of the pharmacist in the education and teaching of the nursing staff through formal and informal classes in materia medica and pharmacology and describes the effects of an informational and advisory service upon the inter-relationships between these hospital departments.

page 50

TIMELY DRUGS

BACITRACIN OINTMENT . . . is now available from Abbott Laboratories. For use as a topical application in the treatment of pyogenic infections of the skin, it is indicated in the treatment of such conditions as impetigo contagiosa, folliculitis, infectious eczematoid dermatitis, vesiculopustular eruptions, ecthyma, and superficial ulcer, and in the treatment of secondary infections in allergic eczema, scabies, contact dermatitis and dermatophytosis. Bacitracin ointment, 500 units per gram, is supplied in one-half ounce tubes.

* * *

BACITRACIN OPHTHALMIC OINTMENT . . . is also available from Abbott Laboratories. For use in external infections of the eye, the ophthalmic ointment is indicated in the treatment of conjunctivities and blepharoconjunctivities. Bacitracin ophthalmic ointment, 500 units per gram, is available in one-eighth ounce tubes.

* * *

CARMETHOSE-TRASENTINE . . . is a new combination of an antacid and an antispasmodic for use in hyperacidity and peptic ulcer therapy. The combination provides relief of gastric discomfort and pain in cases where high acidity, hypermotility and spasm are factors in peptic ulcer, gastric neuroses, simple gastritis and other forms of gastric dysfunction. Carmethose-Trasentine tablets, each containing 225 mg. of sodium carboxymethylcellulose, together with 75 mg. of magnesium oxide and 25 mg. of Trasentine, are available from Ciba Pharmaceutical Products, Inc. The dosage is two to four tablets taken four to six times a day spaced between meals to coincide with the supposed peak of gastric acidity, and at bedtime. The tablets should be taken with a glass of milk or water and should not be chewed.

* * *

CEBETINIC TABLETS . . . for use in the prevention and treatment of iron-deficiency anemia are supplied by The Upjohn Company. Iron, in the form of ferrous gluconate, and the hematopoietic factors, B_{12} and folic acid, together with other B-complex factors and vitamin C, are provided in the Cebetinic tablets. It is recommended for use in anemias of pregnancy, growing children, and persons suffering from conditions resulting in chronic loss of blood or faulty absorption caused by disorders of the alimentary tract. They are also useful in treatment of anemias associated with chronic infection, malnutrition, and conditions that give rise to increased nutritional requirements. For adults, dosage of Cebetinic tablets is three or more daily; for children, one to three tablets daily. Tablets are supplied in bottles of 60 and 500.

* * *

ESKEL . . . is the name given to a preparation of khellin by Smith Kline and French Laboratories. It is available in tablet form for the prophylaxis and treatment of angina pectoris and bronchial asthma. Eskel is a mixture of active principles, chiefly khellin, extracted from the Mediterranean plant *Ammi visnaga*. It is reported to be greatly superior to aminophyllin, with a prolonged effect invaluable in the prophylaxis and treatment of angina pectoris. Advantages of Eskel over aminophyllin are as follows: 1. Eskel has approximately five times the coronary dilating activity of aminophyllin in the isolated heart; 2. Eskel has a prolonged therapeutic action; 3. It has no demonstrable effect on the myocardium, and only an insignificant effect on blood pressure and pulse rate; and 4. There is no evidence that patients develop a tolerance to Eskel. The initial (khellinization) dose of Eskel is one tablet (40 mg.) three times daily after meals. In a few cases, four times daily. The maintenance dose must be determined individually.

* * *

HISTA-COPANE . . . is a combination of Histadyl (Thenylpyramine, Lilly) and Clopane Hydrochloride (Cyclopentamine Hydrochloride, Lilly) recently available from Eli Lilly Company. Hista-Clopane Pulvules for oral administration are indicated in the treatment of the nasal and ocular symptoms of hay fever and vasomotor rhinitis. The Pulvules are supplied in packages of 100, 500 and 5,000.

* * *

LIPOCAPS . . . is the new lipotropic capsule available from Lakeside Laboratories, Milwaukee, Wis. Indicated in cirrhosis and other liver disorders, diabetes, atherosclerosis, infertility and disturbed fat metabolism, each capsule

contains 450 mg. choline bitartrate, 150 mg. *dl*-methionine and 100 mg. inositol. Lipocaps are available in bottles of 100 capsules.

* * *

ORESTRALYN . . . (Ethinyl Estradiol) is an oral estrogen useful in the treatment of manifestations of estrogen deficiency, including menopausal symptoms and disturbances of the menstrual cycle; it is also useful for the palliative therapy of prostatic carcinoma. Orestralyn is available from McNeil Laboratories, Inc., Philadelphia, in 0.02 mg. tablets, 0.05 mg. tablets and in an elixir containing 0.1? mg. per 30 cc.

* * *

LITRISON . . . is a liver-protecting dietary supplement recommended for the prevention and treatment of those liver diseases which are responsive to lipotropic factors and fat and water-soluble vitamins. Litrison is available from Hoffman-La Roche, Inc. in capsule form, and is supplied in bottles of 100. A daily dose of six capsules is recommended.

* * *

PERANDREN . . . (testosterone propionate, Ciba) is now available in 10 cc. multiple dose vials containing a new, high concentration of 100 mg. per cc. This preparation has been made available since larger doses of testosterone propionate are now being recommended for certain conditions such as breast carcinoma.

* * *

PROMACETIN . . . (Acetsulfone, Parke, Davis and Co.) an orally effective compound for the treatment of leprosy, is available in 0.5 Gm. tablets. One to three tablets (0.5 to 1.5 Gm.) daily is indicated initially and increased every two weeks by one to three tablets until a maximum daily dose of six to eight tablets (3 to 4 Gm.) is reached.

* * *

RC-PAK . . . is Abbot's completely disposable, all-plastic primary filter drip unit to be used with any plug-in type container for the administration of blood or plasma without saline solution. SECONDARY RC-PAK is Abbott's completely disposable, all-plastic secondary filter drip unit to be used for the administration of blood or plasma in conjunction with saline solution in a series hook-up with Venopak (Abbott's completely disposable venoclysis unit). RC-Pak and Secondary RC-Pak are sterile, pyrogen-free, preassembled and ready for immediate use. Each RC-Pak and Secondary RC-Pak consists of a plastic filter drip, plastic tubing with gum rubber insertion, air filter valve needle, pinch clamp and needle adapter. Each is a universal unit adaptable for use with any plug-in type of blood or plasma container. Either set is supplied in boxes of 20 units.

* * *

RETICULEX . . . is a combination of liver-stomach concentrate; ferrous sulfate, anhydrous; ascorbic acid; folic acid; and vitamin B_{12} indicated in many forms of commonly encountered anemia. Available as Pulvules, the suggested average dose is two Pulvules three times daily. Reticulex Pulvules are supplied by Eli Lilly and Company in bottles of 100, 500, and 5,000.

* * *

STILBETIN . . . is the trade name recently adopted by E. R. Squibb and Sons for its diethylstilbestrol tablets. The tablets are available in bottles of 100 and 1,000 in strengths of 0.1 mg., 0.25 mg., 0.5 mg., 1.0 mg., 5.0 mg., and 25.0 mg.

* * *

SUCARYL . . . (Cyclamate Sodium, Abbott) is a new noncaloric sweetening agent in tablet form with the natural sweet taste of sugar. It is stable and synthetic and is marketed especially for use in diabetic, reducing and other diets which call for limitation of calories or carbohydrates. Whole tablets may be added directly to foods being cooked and to hot or iced drinks, or they may be crushed and sprinkled on cereals or fruits. It is recommended that adult patients limit their daily intake to eight tablets (1 Gm.). Patients suffering from severe kidney impairment should use only moderate amounts and under medical supervision. Sucaryl is supplied in ⅛ Gm. grooved tablets in bottles of 100 and 1,000. One tablet is equivalent in sweetening power to one teaspoonful of sugar.

* * *

SUGRACILLIN . . . is a preparation of flavored granules of buffered crystalline penicillin G potassium, available from The Upjohn Company. Uses of Sugracillin are the same as other oral penicillin products, but it is of particular use in pediatrics and for patients who prefer fluid medication. It is supplied in bottles of 60 cc. containing 1,200,000 units of penicillin. The contents of the bottle are dissolved in enough water to make 60 cc. of solution. This gives a concentration of 20,000 units of crystalline penicillin G per cc., approximately 100,000 units per teaspoonful. While the dose will vary depending upon the disease being treated, the initial dose is usually 500,000 units followed by 100,000 units every three hours.

the Veterans Administration

PHARMACIST

Edited by EDDIE WOLFE, *Mt. Alto Veterans Hospital, Washington, D.C.*

FREE PUBLICATIONS

During a conversation with one of our staff physicians, he raised the question of how it was possible for the pharmacist to keep himself so well-informed on the many new drugs and their uses that are constantly appearing on the market. I feel sure that my answer to him will be of interest to all pharmacists, although most of you to whom these sources of information have been available will realize that there is no mystery to being an alert and well-informed hospital pharmacist.

From the material in the publications listed below, we maintain a complete drug file that is constantly being revised and therefore any required information regarding the latest drugs is at our fingertips. We earnestly recommend these publications to any of you who are not at present receiving them as valuable mediums in keeping up-to-date in our profession. It may be well to suggest that you also request that your name be included on the mailing lists for any additional drug literature that may be published.

The publications listed below are gladly furnished gratuituously by the leading drug companies and you have only to place your name with them to be included on their mailing lists.

Therapeutic Notes, Parke-Davis Co., Detroit 32, Mich.

Modern Pharmacy, Parke-Davis Co., Detroit 32, Mich.

Scope, Upjohn Co., Kalamazoo 99, Mich.

Pulse in Pharmacy, Wyeth Co., Philadelphia, Pa.

Tile and Till, Eli Lilly Co., P.O. Box 618, Indianapolis 6, Ind.

Physician's Bulletin, Eli Lilly Co., P.O. Box 618, Indianapolis 6, Ind.

What's New, Abbott Laboratories, North Chicago, Ill.

Seminar, Sharp & Dohme Co., Philadelphia, Pa.

Pharmacal Advance, Menley & James, 70 W. 40th St., New York 18, N.Y.

The Merck Report, Merck & Co., Rahway, New Jersey.

The C.S.C. Reporter, 17 E. 42nd St., New York 17, N.Y.

Lederle Bulletin, 30 Rockfeller Plaza, New York 20, N.Y.

Bristol Digest, Syracuse, New York.

FORMULAS BY V.A. PHARMACISTS

BENZYL BENZOATE EMULSION 25%

Benzyl Benzoate U.S.P.	25 Gm.
Duponol C (Sodium Lauryl Sulfate)	2 Gm.
Bentonite Magma 2.5%	
Distilled Water, equal parts, to make	100 cc.

Dissolve Duponol in water, then add benzyl benzoate and magma bentonite.

HAND LOTION

Stearic Acid	4 Gm.
Triethanolamine	1 cc.
Liquid Petrolatum	1 cc.
Distilled Water, to make	100 cc.

Melt stearic acid and liquid petrolatum, heat water and triethanolamine to same temperature as the stearic-petrolatum mixture. Mix both solutions, stir well.

ELECTRODE PASTE

Sodium Chloride	400 Gm.
Bentonite	453.5 Gm.
Glycerin	50 cc.
Distilled Water	750 cc.

Dissolve sodium chloride in hot distilled water then add glycerin, stir. Place bentonite in mortar and add the sodium chloride-glycerin solution. Stir and mix well.

DENTAL IMPRESSION PLASTER

Corn Starch	1½ lb.
Plaster of Paris	5 lb.

Mix powders together. Flavor or color may be added. To use, add sufficient water until paste of smooth thick consistency is formed.

as the Vice-President sees it

GROVER C. BOWLES
Strong Memorial Hospital,
Rochester, New York

In making his report at the Atlantic City meeting, retiring Vice-President W. Paul Briggs, remarked that the vice-president was in charge of vice and since there was no vice in the Society during the past year, he had nothing to report.

President-elect Tom Reamer, took this remark to heart and while the incidence of vice within the Society has not increased materially I have been kept busy since my installation as vice-president. To those of you who feel you need additional executive training, I suggest you follow Mr. Reamer's activities during his year in the president's chair. He has unusual ability as an administrator, particularly when it concerns delegation of duties to subordinates. Not only did Mr. Reamer appoint me chairman of the Committee on Organization and Membership but he is also sharing with me the honor of writing the President's Page.

MEMBERSHIP PLANS

At the present time Mr. Reamer is exerting considerable pressure on me and the members of my committee to muster a minimum of five hundred new members before convention time next August. On the surface, five hundred new members does not appear unreasonable but if we are to succeed in increasing our membership to over 2,000, within the next year, a lot of personal contacting must be done.

Very shortly a subcommittee on membership consisting of forty-eight people, one in each state, will be appointed. It is hoped that each of these individuals will in turn appoint sufficient ASHP members to contact every non-member hospital pharmacist in their state. This plan, carried to completion will mean that every hospital pharmacist in this country who is not a member of the ASHP will be contacted at least once during the coming year.

Our membership has expanded rapidly during recent years and there is no evidence that we are reaching saturation; however, I believe we now have a majority of the people who are going to join the Society automatically. It now becomes a proposition of selling the Society to the non-member. Undoubtedly, many prospective members need only an invitation to join in order to crystallize their thinking on the matter. Certainly it is the duty of all of us to issue such invitations.

In addition to new members the Society needs better representation on the state and local level. Regional affiliated groups with their representation in the House of Delegates are becoming a potent force in the formation of the over-all policy of the Society. Regional groups, particularly those on the local level, offer something tangible to the prospective member. In all instances the formation of regional groups has resulted in increased membership in that area.

The Northeastern New York Society of Hospital Pharmacists is the most recent group to be accepted for affiliation with the Society. Since I am a charter member of this group I would like to tell you something about its inception and progress in this column at a later date.

INSTITUTES

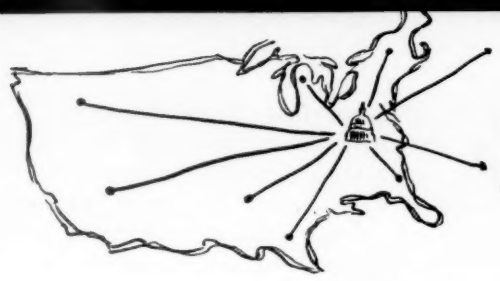
During the month of June it was my pleasure to participate in two highly successful Institutes on Hospital Pharmacy.

The Second Institute for Hospital Pharmacists, sponsored jointly by the Catholic Hospital Association, the American Pharmaceutical Association, and the American Society of Hospital Pharmacists, was held in Milwaukee, June 7-12, under the auspices of Marquette University. The program arranged by the Committee on Pharmacy Practice of the Catholic Hospital Association under the chairmanship of Sister Mary Berenice, S.S.M., St. Mary's Hospital, St. Louis, was well balanced and extremely informative.

The Sixth Institute on Hospital Pharmacy sponsored jointly by the American Hospital Association, The American Pharmaceutical Association, and the American Society of Hospital Pharmacists, was held in Ann Arbor, June 19-23. More than 150 hospital pharmacists attended this institute making it the largest Hospital Pharmacy Institute thus far held.

Those of you who attended either of these institutes enjoyed one of the most successful refresher courses ever conducted; those who were not present at either institute missed a highly stimulating experience.

Sincerely,
Grover C. Bowles



A.S.H.P. AFFILIATES

A complete list of all affiliated chapters of the American Society of Hospital Pharmacists along with the officers of each appears on page 204 of this issue of THE BULLETIN.

Activities of the **Northern California Society of Hospital Pharmacists** include an intensive drive to raise funds to establish a scholarship fund in the name of the late Julian Wells, former professor of the College of Pharmacy, University of California; chief pharmacist at the University of California Hospital; and charter member and organizer of the Northern California Society.

Hospital pharmacists attending the May meeting of the Northern California Society heard Dr. John Upton, chairman of the California Medical Association Blood Bank Commission, who discussed the objectives of the Commission. A film on Oxycel was presented by Parke, Davis and Co.

Dr. Taku Keimatsu, pharmacy delegate of the Japan Trade Mission touring the United States, was present and presented greetings from the pharmacists of Japan.

At this meeting Dr. Donald C. Brodie of the College of Pharmacy and delegate to the A.Ph.A. convention in Atlantic City, presented a gavel to the Northern California Society which was awarded at the recent annual meeting by the national Society to the local chapter showing the greatest increase in membership during the past year.

Dr. Robert Stormont, secretary of the Council on Pharmacy and Chemistry of the American Medical Association, was the principal speaker at a joint meeting of the Northern California Branch of the A.Ph.A. and the hospital group held at the Medical Center in June.

Forty hospital pharmacists attended the May 10 meeting of the **Southern California Chapter of the American Society of Hospital Pharmacists** held at St. Vincent's Hospital in Los Angeles. Speaker for the meeting was Robert R. Commons, M.D. of Los Angeles, who discussed "Potassium Metabolism."

Reports were received from the various committees including a letter submitted by Sister Junilla to the Professional Relations Committee relative to establishing an annual Western Hospital Pharmacy Institute in conjunction with the Western Hospital and Catholic Hospital Associations' annual institute. The proposed institute would be held just prior to the annual Western Hospital Convention. The matter was referred to committee.

Mr. Charles Hagan reported on the recent meeting of the Western Hospital Convention held in Seattle during the week of April 24.

Members of the **Hospital Pharmacists Association of Greater St. Louis** met at Alexian Brothers Hospital on May 9. Brother Sylvarius, Rector of the hospital, gave a welcoming address. Committee reports were received and Mrs. Elnorah Drury presented a report on the Tri-State Hospital Convention held in Chicago in May. During the meeting representatives from Eli Lilly and Co. spoke on "Enseals" and "Surfacaine."

Miss Valerie Armbruster was re-installed as president of the **Louisiana Society of Hospital Pharmacists** meeting at the La Louisiane restaurant in New Orleans on June 28. Other officers for the coming year include: Herbert Mang, vice-president; Shirley Bickmann, secretary; and Sylvia Chin-Bing, treasurer. Mr. Albert P. Lauve was the principal speaker for the meeting.

The **Florida Hospital Pharmacy Association** met at the Sheraton Plaza Hotel in Daytona Beach on May 24. Included on the program was a discussion of the Florida Formulary by Mr. Charles S. Haupt, associate director, Bureau of Professional Relations, College of Pharmacy, University of Florida. Mr. Charles Freeman, chief state drug inspector of the State Chemist Office spoke on the regulations and laws governing barbiturates in Florida. A review of the work accomplished during the past year by the Southeastern Society was presented as well as announcements concerning the forthcoming meeting to be held in October at Fontana Village, N.C.

Officers nominated to be submitted to the membership by mail ballot are as follows: President George Lill, Broward County Hospital, Ft. Lauderdale, Fla.; Vice-President L. A. Whidden, Florida Sanitarium and Hospital, Orlando, Fla.; Secretary Henrietta O'Quinn, Jackson Memorial Hospital, Miami; and Treasurer Mrs. Anna D. Thiel, Jackson Memorial Hospital, Miami.

The May meeting of the **Western Pennsylvania Society of Hospital Pharmacists** was held at the Falk Clinic in Pittsburgh on the 18th. Present at this meeting were Mr. David Roush of the Federal Narcotic Bureau and Mr. Don E. Gillung, chief, Narcotic Drug Control, Harrisburg. Mr. Gillung reviewed the laws regulating narcotics, barbiturates and other dangerous drugs, stressing the importance of keeping accurate records on the dispensing of such drugs.

New officers of the **Akron Area Society of Hospital Pharmacists** elected at the May 10 meeting are: President William Slabodnick, Massillon City Hospital, Massillon, Ohio; Vice-President Leon Bailey, Youngstown Hospital, Youngstown, Ohio; Secretary Irene Chosy, Aultman Hospital, Canton, Ohio; and Treasurer Mrs. Willa Rinehart, Peoples Hospital, Akron, Ohio.

At the meeting at St. Elizabeth's Hospital in Youngstown, Sister Jeanne Marie, chief pharmacist, was hostess.

The Cleveland Society of Hospital Pharmacists held its annual dinner meeting on May 31. Officers for the coming year were elected as follows: Chairman Mrs. Evlyn Gray Scott, St. Luke's Hospital, Cleveland; Vice-Chairman Charles Nevel, Lutheran Hospital, Cleveland; Recording Secretary Mary Dvorak, Community Hospital, Berea; and Corresponding Secretary Edward Paley, U.S. Marine Hospital, Cleveland.

Mr. William Slabodnick, a guest from the Akron Area Society reported on the annual A.S.H.P. meeting and A.Ph.A. convention which was held in Atlantic City in May.

Mr. Alfred A. Rosenberg, chief pharmacist at the Beth Israel Hospital in Boston, was host to the **Massachusetts Society of Hospital Pharmacists** on Wednesday afternoon, March 29. The program included a panel discussion on hospital problems pertaining to the pharmacist such as legal problems, determination of floor stock, charge systems, arrangement of the medicine cabinets, etc. A number of excellent ideas on how to solve some of the problems were discussed. Mr. Arthur Dodds, Lynn Hospital, Lynn, Mass., acted as moderator and other participants included Mr. John T. Murphy, Massachusetts General Hospital, Boston; Mr. Joseph A. Shibel, Lawrence General Hospital, Lawrence, Mass.; and Mr. Joseph Chamberlin, New England Deaconess Hospital, Boston.

An all-day joint meeting of the **Massachusetts Society of Hospital Pharmacists** and the **Connecticut Society of Hospital Pharmacists** was held at the Beth Israel Hospital in Boston on May 17. The group was welcomed by Mr. Alfred Rosenberg, president of the Massachusetts' group. During the morning session those attending had an opportunity to visit the new pharmacy department at Beth Israel Hospital where demonstrations were shown. A visit to the pharmacy department at Massachusetts General Hospital was also included in the schedule.

Speakers at the afternoon session included Mr. John Karman, pharmacist at the New England Deaconess Hospital who demonstrated equipment used for filling penicillin vials; and Mr. F. J. Sullivan who discussed "Sterile Solutions." A panel discussion was held in the evening with Mr. Arthur Dodds as moderator and the following participants: Arthur T. Smithwick, Middlesex Hospital, Middlesex, Conn.; Thomas Heffernan, Waterbury Hospital, Waterbury, Conn.; David Burack, Mt. Sinai Hospital, Hartford, Conn.; Professor M. Stoklosa, Massachusetts College of Pharmacy, Boston; Joseph Chamberlin, New England Deaconess Hospital, Boston; and Frank E. Dondero, U.S. Marine Hospital, Brighton, Mass.

Twenty-six hospital pharmacists and friends of hospital pharmacy attended a breakfast meeting of the **Texas Society of Hospital Pharmacists** on June 21. The meeting was held at the Shamrock Hotel in Houston during the convention of the Texas Pharmaceutical Association. Mr. Frank Bowers, chief pharmacist at Hermann Hospital in Houston, introduced all those attending and presided over the informal program. With the deans of both pharmacy schools in Texas present, the subject of the training of future hospital pharmacists was among the topics discussed.

Mr. Lewis Smith, president of the Texas Society and chief pharmacist at Baylor Hospital in Dallas, was on the general program of the T.Ph.A meeting, participating in a professional pharmacy forum devoted to problems of practicing pharmacists.

The Southeastern Society of Hospital Pharmacists will hold its semi-annual meeting at Fontana Village, N.C. on October 6, 7 and 8. Tentative plans for the program include reports on the 1950 national convention and the Institute on Hospital Pharmacy as well as papers on "Developing a Hospital Pharmacy"; "Useful Equipment for the Hospital Pharmacy—200 Bed and Less"; "Individual vs Flat Rate Patient Drug Charges"; and "Minimum Standards."

NEWS ITEMS

American Hospital Association Convention

The 52nd annual convention of the American Hospital Association will be held in Atlantic City, N.J. September 18-21 with headquarters at the Traymore Hotel. General sessions will be divided into four parts, the main theme covered to be "Organizing the Hospital to Meet the Changing Scene," which will include sessions on general questions, finances and medical practice. There will also be a "Small Hospital Forum" which will include a panel of 40 selected administrators to analyze and arrive at solutions to problems in these areas of interest to representatives of small hospitals.

The Division of Hospital Pharmacy of the American Pharmaceutical Association and the American Society of Hospital Pharmacists in cooperation with the New Jersey Society of Hospital Pharmacists will have an educational exhibit at the Convention. A feature of this display will be a scale model of a Pharmacy Department for a 200 bed general hospital. This model, prepared by the Division of Hospital Facilities of the U. S. Public Health Service, details the Pharmacy for a 200 bed general hospital as described in THIS PUBLICATION **7**:122 (May-June) 1950. This is the first time that a detailed model of a hospital pharmacy has been exhibited and it is expected to be of great interest to hospital administrators, architects, consultants and pharmacists.

Texas Hospital Pharmacy Seminar

More than thirty pharmacists attended the University of Texas Hospital Pharmacy Seminar held in May of this year. A view of the final session is shown above. The seminar was sponsored by the College of Pharmacy and held in conjunction with a meeting of the Texas Society of Hospital Pharmacists.

Louisiana Society Installs Officers

The Louisiana Society of Hospital Pharmacists held its annual banquet in "America's Most Interesting City" recently and the program was highlighted by the installation of newly elected officers. Pictured above, left to right, are: Miss Shirley Bickman, *secretary;* Herbert J. Mang, *vice-president;* Albert P. Lauve, reading the oath of office; Miss Valerie Armbruster, *president;* I. L. Lyons, Jr., president of Lyons & Co., who served as hosts; and Miss Sylvia Chin-Bing, *treasurer.* The banquet, held in New Orleans, was attended by more than fifty members.

Western Hospital Association Convention

Miss Florence Martin, president of the Southern California Chapter of the American Society of Hospital Pharmacists, was elected president of the Pharmacy Section of the Western Hospital Association recently meeting in Seattle. Mrs. Norma Irish, also a member of the Southern California chapter was elected secretary-treasurer.

Mr. Francis Spinelli, president of the Northern California chapter was also present at the Western Hospital Convention.

Hospital Pharmacists Meet with Administrators

The U.S. Public Health Service sponsored a meeting of hospital administrators of the Western States, Hawaii and Alaska on June 2. Hospital pharmacists attending were J. M. Yalon, chief pharmacist at University of California Hospital and Francis Spinelli, chief pharmacist at Southern Pacific Hospital.

Miami Hospital Pharmacists Meet

Hospital pharmacists in the city of Miami held a dinner meeting at the McAllister Hotel in Miami on June 13. The principal speaker was R. Q. Richards, a retail pharmacist in Ft. Meyer, Fla., who has been active in state and national pharmaceutical associations.

Edith Bactowsky Accepts Position

Miss Edith Bactowsky has recently completed an internship in hospital pharmacy at the Jefferson Medical College Hospital and has received her Master's degree from the Philadelphia College of Pharmacy and Science. She has accepted the position as chief pharmacist at the Albany Hospital in Albany, N.Y. and will assume her duties on September 1.

Cathcart Accepts New Position

Mr. J. R. Cathcart, formerly chief pharmacist at the Chester County Hospital in West Chester, Pa., and past-secretary of the A.S.H.P. has recently accepted the position as chief pharmacist at the Delaware Hospital in Wilmington. Mr. Cathcart will assume his new duties in the near future.

American College of Surgeons to Meet

The annual Clinical Congress of the American College of Surgeons will be held at the Hotel Statler in Boston from October 23-27. In conjunction with the Clinical Congress, the twenty-ninth Hospital Standardization Conference will also convene. Hospital administrators, trustees, members of medical staffs, nurses, technicians, dietitians, and heads of the various hospital departments and their personnel, are invited to participate.

John Miller Accepts New Position

John F. Miller, recently appointed administrative assistant at The Jewish Hospital of Brooklyn, has resigned this position to become administrator of the Union Hospital in Dover, Ohio. He was selected from a group of 90 applicants.

Mr. Miller received his Bachelor of Science degree in pharmacy in 1936 from Western Reserve University at Cleveland, Ohio. For several years he was hospital pharmacist at Huron Road Hospital, East Cleveland, Ohio and Oak Ridge Hospital in Oak Ridge, Tenn. During the war he served as a civilian chief pharmacist for the War Department, Division Engineers stationed in Ancon, Canal Zone.

In 1945 Mr. Miller was appointed chief pharmacist at the Aultman Hospital in Canton, Ohio and later became its purchasing agent. In 1948 he entered the course in hospital administration at Columbia University where he received his Master's degree in hospital administration on June 8, 1950 after completing a year as administrative resident at the Jewish Hospital of Brooklyn.

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POSITIONS IN HOSPITAL PHARMACY

POSITIONS WANTED

NEW YORK AREA . . . Young lady pharmacist. British trained and licensed. Not licensed in U.S. Desires position in hospital pharmacy, preferably in New York area. Contact the Division of Hospital Pharmacy (PW-6), 2215 Constitution Avenue, N.W., Washington, D.C.

MAN, 35 YEARS OLD, . . . married, desires position as chief pharmacist. Holds B.A. degree in Education (College of the City of New York, '36) and B.S. in Pharmacy (Philadelphia College of Pharmacy and Science, '49). One year's experience in manufacturing pharmacy, three years in retail pharmacy, one year in hospital pharmacy. Will consider position anywhere in the United States. For further information please write to Sydney Levitan, 226 South 46th St., Philadelphia 39, Pa.

POSITIONS OPEN

PENNSYLVANIA . . . Wanted by January 1, 1951. Assistant Pharmacist. Eligibility for registration in Pennsylvania is necessary. Address letters of application to: Bradford Hospital, Bradford, Pa.

MICHIGAN . . . Man to head hospital pharmacy department in 633 bed hospital. Beginning salary $6,100 with regular increments. Pharmacy Department to be expanded, teaching affiliation with College of Pharmacy, internship program, parenteral solutions. Big opportunity for the individual with initiative, administrative ability, and hospital pharmacy experience. Prefer person with hospital pharmacy internship training, preferably one with a M.S. or Ph.D.; although one with a B.S. degree will be considered. Direct letter of application to Dean Roland T. Lakey, College of Pharmacy, Wayne University, 625 Mullett St., Detroit 26, Michigan.

CALIFORNIA . . . Miss Clara Henry, 526 35th St., Oakland, Calif., personnel chairman of the Northern California Society of Hospital Pharmacists, East Oakland Hospital, Oakland, reports that she has several applications for positions and several positions. Most of the applicants wish to work on the Bay, or come to the Bay and most of the positions are from out-of-town and out-of-state—one coming from Alaska.

AGENCIES—The following openings in hospital pharmacy appeared in the June issue of *Hospitals,* page 146. Anyone interested in the positions should write directly to the agency indicated. A fee is charged when positions are secured through the services of a personnel agency.

PHARMACISTS — (a) Chief; new modernly equipped department; general hospital, medium size; busy outpatient department; straight salary, $400, 40-hour 5-day week; California. (b) Relatively new hospital of small size; Southwest. H6-11—The Medical Bureau, Burneice Larson, Director, Palmolive Building, Chicago, Ill.

The following openings appeared in the June issue of *The Modern Hospital,* page 220.

PHARMACISTS—(a) Male; 375-bed; $300, meals. (b) Male or female; 200-bed; $300, meals. Medical Personnel Exchange, Nellie A. Gealt, R.N., Director, 4707 Springfield Ave., Philadelphia 43, Pa.

VETERANS ADMINISTRATION—Announcement has been made by the United States Civil Service Commission of an examination for pharmacist for duty in the Veterans Administration. Applications should be made to the Executive Secretary, Committee of Expert Examiners, Veterans Administration, Washington 25, D.C. The salary range is from $3,100 to $4,600 a year.

Applicants must meet the education, registration and experience requirements as described below.

All applicants must have completed a 4-year course in pharmacy and have a bachelor's degree from an approved school; or they must have a master's, doctor of philosophy, or doctor of science degree with a major in pharmacy from an approved school. The approved schools shall be (*a*) those schools, colleges, or universities in the list of schools accredited by the American Council on Pharmaceutical Education, or (*b*) those schools, colleges, or universities which were members of the American Association of Colleges of Pharmacy and offered a 4-year course in pharmacy, but which were discontinued prior to the initial accrediting of schools by the American Council on Pharmaceutical Education.

All applicants must be currently registered as a pharmacist in one of the States or Territories of the United States, or in the District of Columbia.

For additional information in regard to such positions, you may write to the United States Civil Service Commission, Washington, D.C., requesting Announcement No. 232, issued July 11, 1950.